

Technical Report WINLAB-TR-264

PCS H Block Interference Tests

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Overview

Tests were performed on 7 cellular handsets from a variety of technologies and equipment manufacturers, as specified in *Test Plan for the Feasibility of a PCS H Block, Revision 9, October 8, 2004*, with the intention of evaluating handset susceptibility to out-of-band interference arising from the proposed reallocation of former guard spectrum in the PCS band from 1.850 GHz to 2.000 GHz.

All tests were performed with the test handset in the Lindgren RF Enclosures RF chamber. 115V AC power was passed into the chamber through a built-in EMI/RFI filter. Test handsets were plugged into their chargers while in the chamber, and the charger was plugged into the internal chamber AC outlet. One N-Type bulkhead connector was used to connect the handset antenna to the external base-station simulator. Another N-Type bulkhead connector was used to connect the K-Type temperature probe to an external meter. One DB9 bulkhead connector was used to pass power to the internal chamber 45W resistive heater for the elevated temperature tests. An external DC fan was mounted in an external heat trap positioned over the vent holes in the top of the chamber to provide chamber cooling by circulating ambient air through the chamber.

Most test instruments were connected to a GPIB controller via the GPIB. The Receiver Sensitivity Tests and the Receiver Overload Tests were automated with specially written code in C language running on the GPIB controller computer. The automated tests were split into blocks which took no more than 90 minutes to run due to battery limitations of the test handsets. The Transmitter Spurious Emissions Tests were performed manually.

RF chamber temperature regulation was handled by the GPIB controller and the test software in a closed loop fashion controlling the low and high temperature settings in which internal chamber temperature was averaging 78 and 100 degrees, respectively.

Test Setups

There were three test setups which varied as a function of handset technology and out-of-band interference type, plus a fourth test setup used only for spurious emissions:

1 - CDMA Handsets - Registering and Operating Only in PCS Band

The Agilent E5515C base-station simulator was used as shown in setup 1, 2, and 3 of Table 1. An external duplexer, K&L Microwave WSD-00001, and circulator, Meca Electronics CN-1.950, were used to inject the out-of-band interference signal in only the downlink signal path. The external out-of-band interference signal was generated by the Agilent E4438C Signal Generator. Since the Agilent E5515C base-station simulator was capable of internally generating in-band AWGN noise, no external in-band AWGN signal generator was necessary in these setups.

Setup 1 was used for external interferer signals confined to the 1.915 GHz to 1.920 GHz H-Block band, as provided by the Digital Communications Inc. H-Block Filter attached in the Agilent E4438C Signal Generator output path. The Meca Electronics IN-1.950 isolators were used to prevent energy reflected by the test setup from unleveling the Agilent E4438C Signal Generator output at high output levels. Base-station simulator to DUT, and out-of-band interferer to DUT path losses were characterized using the Agilent E5071B Network Analyzer as shown in Table 96-Table 98 and summarized in Table 1.

Setup 2 was identical to setup 1, except for the lack of the Digital Communications Inc. H-Block filter in the output path of the Agilent E4438C Signal Generator. This allows the interferer to influence the entire PCS band. Base-station simulator to DUT, and out-of-band interferer to DUT path losses were characterized using the Agilent E5071B Network Analyzer as shown in Table 99-Table 100 and summarized in Table 1.

Setup 3 was identical to setup 1, except that the Digital Communications Inc. H-Block filter was replaced with a C-Block filter composed of a K&L Microwave Model WSD00010 Duplexer with the TX port terminated into 50 ohms. This created a band pass filter in the 1.850 GHz to 1.910 GHz band, and was used to confine the external interferer to that typical of a PCS band handset transmitting to a base station. Base-station simulator to DUT, and out-of-band interferer to DUT path losses were characterized using the Agilent E5071B Network Analyzer as shown in Table 101-Table 102 and summarized in Table 1.

Setup ID	Diagram	Path Loss (dB)	
1		BSS to DUT	5.0
		INT to DUT	9.0
2		BSS to DUT	5.0
		INT to DUT	5.0
3		BSS to DUT	5.0
		INT to DUT	5.4

Table 1: Test Setups - CDMA Handsets

2 - Dual-Mode CDMA Handsets Registering in 900 MHz Cellular Band and Operating in PCS Band

Test setup 4, 5, and 6 of Table 2 were used for CDMA2000 handsets that required registration in the cellular 900 MHz band, with handoff to the 1.9 GHz PCS band. This required the addition of two power splitters and a “registration cable”. The registration cable bypassed the K&L Microwave WSD-00001 PCS band duplexer and Meca Electronics CN-1.950 circulator to allow the 900 MHz registration traffic to reach the handset. After registration, the registration cable was removed and the exposed ends of the two additional splitters were terminated.

With the exception of the registration cable just described, test setup 4, 5, and 6 correspond to test setup 1, 2, and 3, respectively. Base-station simulator to DUT, and out-of-band interferer to DUT path losses were characterized using the Agilent E5071B Network Analyzer as shown in Table 103-Table 107 and summarized in Table 2.

Setup ID	Diagram	Path Loss (dB)
4		BSS to DUT 12.0
	INT to DUT 14.8	
5		BSS to DUT 12.0
	INT to DUT 9.0	
6		BSS to DUT 12.0
	INT to DUT 9.2	

Table 2: Test Setups - Dual Mode CDMA Handsets

3 - GSM and UMTS Handsets

The Rhode and Schwarz CMU 200 base-station simulator was used as shown in setup 7, 8, and 9 of Table 3. An external duplexer, K&L Microwave WSD-00001, and circulator, Mica Electronics CN-1.950, were used to inject the out-of-band interference signal in only the downlink signal path. The external out-of-band interference signal was generated by the Agilent E4438C Signal Generator. Since the Rhode and Schwarz CMU 200 base-station simulator was not capable of internally generating in-band AWGN noise, an external Agilent E4438C Signal Generator and additional Meca Electronics 802-4-1.950 coupler were required to inject in-band AWGN noise.

In terms of out-of-band interferer signal conditioning, setup 7, 8, and 9 correspond to setup 1, 2, and 3 respectively. Base-station simulator to DUT, out-of-band interferer to DUT, and in-band interferer to DUB path losses were characterized using the Agilent E5071B Network Analyzer as shown in Table 108-Table 110 and summarized in Table 3.

4 - Transmitter Spurious Emissions Test Setup

Additionally, there was one test setup for measuring the out-of-band emissions generated by the various handsets, and shown as setup ID 10 in Table 4. The K&L Microwave WSD-00001 was configured as a 1.930 GHz to 1.990 GHz band pass filter by terminating its RX port into 50 ohms. Any energy present in the pass band was amplified approximately 36 dB by the Miteq AFS4 ultra low noise amplifier and passed to the Agilent E4405B Spectrum Analyzer for analysis. DUT to spectrum analyzer, and base station simulator to spectrum analyzer path losses were characterized using the Agilent E5071B Network analyzer as shown in Table 111-Table 112 and summarized in Table 4.

Setup ID	Diagram	Path Loss (dB)
7	<p>Setup 7 block diagram:</p> <ul style="list-style-type: none"> BSS: Rohde & Schwarz CMU 200. AWGN: Agilent E4438C ESC. INT: Agilent E4438C ESC. K&L WSE-00001: Duplexer (TX/RX), Splitter/Combiner, MECA 802.4-95C. DC: 1915-1920. Isolators: MECA IN-950 (Tx and Rx paths). Filter: MECA CN-95C. DUT: A mobile phone icon. 	BSS to DUT 8.35
		AWGN to DUT 8.35
		INT to DUT 9.5
8	<p>Setup 8 block diagram:</p> <ul style="list-style-type: none"> BSS: Rohde & Schwarz CMU 200. AWGN: Agilent E4438C ESC. INT: Agilent E4438C ESC. K&L WSD-00001: Duplexer (Tx/Rx), Splitter/Combiner, MECA 802.4-950. Isolators: MECA IN-950 (Tx and Rx paths). MECA CN-95C: Circulator. DUT: A mobile phone icon. 	BSS to DUT 8.35
		AWGN to DUT 8.35
		INT to DUT 5.0
9	<p>Setup 9 block diagram:</p> <ul style="list-style-type: none"> BSS: Rohde & Schwarz CMU 200. AWGN: Agilent E4438C ESC. INT: Agilent E4438C ESC. K&L WSC-0000: Duplexer (Tx/Rx), Splitter/Combiner, MECA 802.4-950. K&L WSC-0001C: Duplexer (Rx/Tx), Isolator, Terminator. MECA CN-950: Circulator. DUT: A mobile phone icon. 	BSS to DUT 8.35
		AWGN to DUT 8.35
		INT to DUT 5.4

Table 3: Test Setups - UMTS/GSM Handsets

Setup ID	Diagram	Path Loss (dB)	
10		DUT to SA	-32
		BSS to SA	-27

Table 4: Test Setup for Transmitter Spurious Emissions – All Handsets

Test Descriptions

Five types of tests were performed:

1 - Receiver Sensitivity Test

The test setup was configured as shown in Table 2. A call was established between the base-station simulator and the test handset for every handset. There was no in-band or out-of- band interference injected in any signal paths. The base-station simulator down-link power level was lowered to result in a error rate of between 0.45 and 0.65% for CDMA and UMTS DUTs and 1.9 and 2.1 % for GSM DUTs. The resulting base-station simulator down-link power level was read, the test setup and test cable losses were subtracted, and the result was recorded. This gave an estimate of the power level present at the antenna connector of the handset for the desired error rate.

2 - Receiver Overload Test

CDMA, GSM, and UMTS modulated out-of-band interferers were injected in the downlink channel at various frequencies with CDMA, GSM, and UMTS mobile handset operating on various channels and at various base-station power levels (*RX Level*) near the receiver sensitivity threshold, as show in Table 5. *DUT/Channel* refers to all DUTs of a certain technology, and the downlink channel on which the call was established.

Interferer/Channel/Freq. is the modulation type of the interferer, the channel number on which it was applied (if applicable), and the frequency on which it was applied. *Test ID* is used to identify the measurement blocks in the automated test data files. *Setup ID* refers to the setup ID used in performing the test as shown in Table 2, Table 3 and Table 4.

All tests were performed both at approximately 78 degrees F chamber temperature and at approximately 100 degrees F chamber temperature.

DUT/Channel	Interferer/Channel/Freq.		RX level	Test ID	Setup ID
CDMA	25/A	CDMA	1918.75	-105	1,4
		GSM		-100	
		CDMA	1919.8	-105	
	450/B	CDMA	1917.5	-100	
		CDMA		-105	
		CDMA	1918.75	-100	
	25/A	CDMA	1175/C	-105	
		CDMA		-100	
GSM	515/A	CDMA	1908.75	-105	3,6
		GSM		-100	
		CDMA	1918.75	-102	
		GSM	1919.8	-97	
		CDMA		-102	

				-97	2D		
615/B	CDMA	1175/C	1917.5	-102	2E	9	
				-97	2F		
	CDMA		1918.75	-102	2G		
				-97	2H		
UMTS	515/A	CDMA	1908.75	-102	2I	7	
				-97	2J		
	412/A	UMTS	1918.75	-105	3A		
		CDMA		-100	3B		
		GSM	1918.75	-105	3C		
		CDMA		-100	3D		
	512/B	CDMA	1919.8	-105	3E	9	
				-100	3F		
		CDMA	1917.5	-105	3G		
				-100	3H		
		CDMA	1918.75	-105	3I		
				-100	3J		
	412/A	CDMA	1175/C	1908.75	-105 -100	3K 3L	

Table 5: Receiver Overload Tests – Handset Interferers

3 – Intermodulation Test

CDMA modulated out-of-band interferers were injected in the downlink channel at various frequencies with CDMA and UMTS mobile handsets operating on various channels and at various base-station power levels (*RX Level*) near the receiver sensitivity threshold, as shown in Table 6. The table column headings have the same meaning as in Table 5.

All tests were performed both at approximately 78 degrees F chamber temperature and at approximately 100 degrees F chamber temperature.

DUT/Channel	Interferer/Channel/Freq.			RX level	Test ID	Setup ID	
CDMA	575/B	CDMA		1918.75	-105	1M	3,6
					-100	1N	
	550/B	CDMA		1917.5	-105	1O	3,6
					-100	1P	
	840/F ¹	CDMA		1918.75	-105	1Q	3,6
					-100	1R	
UMTS	537/B	CDMA		1918.75	-105 -100	3M 3N	7

Table 6: Receiver Overload Tests – Intermodulation Interferers

¹ One CDMA phone at ambient temperature only

4 – AWGN Test

AWGN out-of-band interferers were injected in the downlink channel at various frequencies with CDMA, GSM, and UMTS mobile handset operating on various channels and at various base-station power levels (*RX Level*) near the receiver sensitivity threshold, as shown in Table 7. The table column headings have the same meaning as in Table 5.

All tests were performed both at approximately 78 degrees F chamber temperature and at approximately 100 degrees F chamber temperature.

DUT/Block		Interferer/Channel/Freq.			RX level	Test ID	Setup ID
CDMA	25/A	AWGN	25/A	1931.25	-105	1S	2,5
					-100	1T	
GSM	515/A	AWGN	515/A	1930.8	-102	2S	8
					-97	2T	
UMTS	412/A	AWGN	412/A	1932.5	-105	3S	8
					-100	3T	

Table 7: Receiver Overload Tests – AWGN Interferers

The Receiver Overload Test, the Intermodulation Test, and the AWGN Test all had the following three phases:

- **Phase 1** The test setup was configured as shown in Table 1, Table 2 and Table 3. A call was established between the base-station simulator and the test handset for every handset. A sufficient level of in-band AWGN interference was injected into the down-link signal path to result in a handset technology dependent error rate of between 0.75% and 1.0% for an *RX Level* of -100 dBm for CDMA and UMTS handsets, between 4.5% and 5.0% for an *RX Level* of -105 dBm for CDMA and UMTS handsets, and between 1.85 and 2.15% for all GSM handsets.
- **Phase 2** The out-of-band interference was injected into the down-link signal path and increased to result in an error rate of around 80% (10% for GSM). The out-of-band interference was at a variety of frequencies and of a variety of modulations, as shown in Table 5, Table 6 and Table 7.
- **Phase 3** The out-of-band interference was stepped back down in 1 or 0.5 dB steps, until the error rate returned to the level as determined in Phase 1. Measurements were taken over a 2000 data frame window above a certain error rate, and then over a 5000 data frame window below the same error rate. These measurements were written to a data file and composed of bulk of the results reported in these tests.

If phase 2 failed to reach the target 80% error rate (10% for GSM), Phase three was forced to start at 0 dB out-of-band interferer power level and step downward in power in 2 dB steps.

If phase 3 failed to return to the baseline power level determined in Phase 1, then the number of phase 3 measurement points was limited to 15.

5 - Transmitter Spurious Emissions Test

Spurious emissions from CDMA, GSM, and UMTS handset transmitters was measured for calls established on various channels and at two handset transmit powers as shown in Table 8. *DUT Transmitter Block* refers to all DUTs of a certain technology, and the uplink channel on which the call was established. *TX Output Power* is the handsets transmit power. *Test ID* is used to identify the measurement blocks in the automated test data files. *Setup ID* refers to the setup ID used in performing the test as shown in Table 4. For each Test ID in Table 8, the average channel power was measured using the Agilent E4405B Spectrum Analyzer.

DUT Transmitter Block		Measurement (dBm/MHz)	TX Output Power	Test ID	Setup ID
CDMA	275/A	OOBE (1930-1932 MHz)	Maximum	1U	10
	600/B		10dB below Maximum	1V	
	1175/C		Maximum	1W	
			10dB below Maximum	1X	
			Maximum	1Y	
			10dB below Maximum	1Z	
GSM		OOBE (1930-1932 MHz)	Maximum	2U	10
			10dB below Maximum	2V	
			Maximum	2W	
			10dB below Maximum	2X	
			Maximum	2Y	
			10dB below Maximum	2Z	
UMTS		OOBE (1930-1932 MHz)	Maximum	3U	10
			10dB below Maximum	3V	
			Maximum	3W	
			10dB below Maximum	3X	
			Maximum	3Y	
			10dB below Maximum	3Z	

Table 8: Transmitter Spurious Emissions Tests

Channel power measurements were taken using the *Channel Power Measurement* feature of the Agilent E4405B Spectrum Analyzer as shown in Figure 1. The resolution bandwidth (RBW) was set to 30 kHz, video bandwidth (VBW) was set to 300 kHz, and integration bandwidth was set to 2 MHz. The final measurement in dBm/MHz was obtained by subtracting 3dB from the instrument reading to get measurements referenced to 1 MHz.

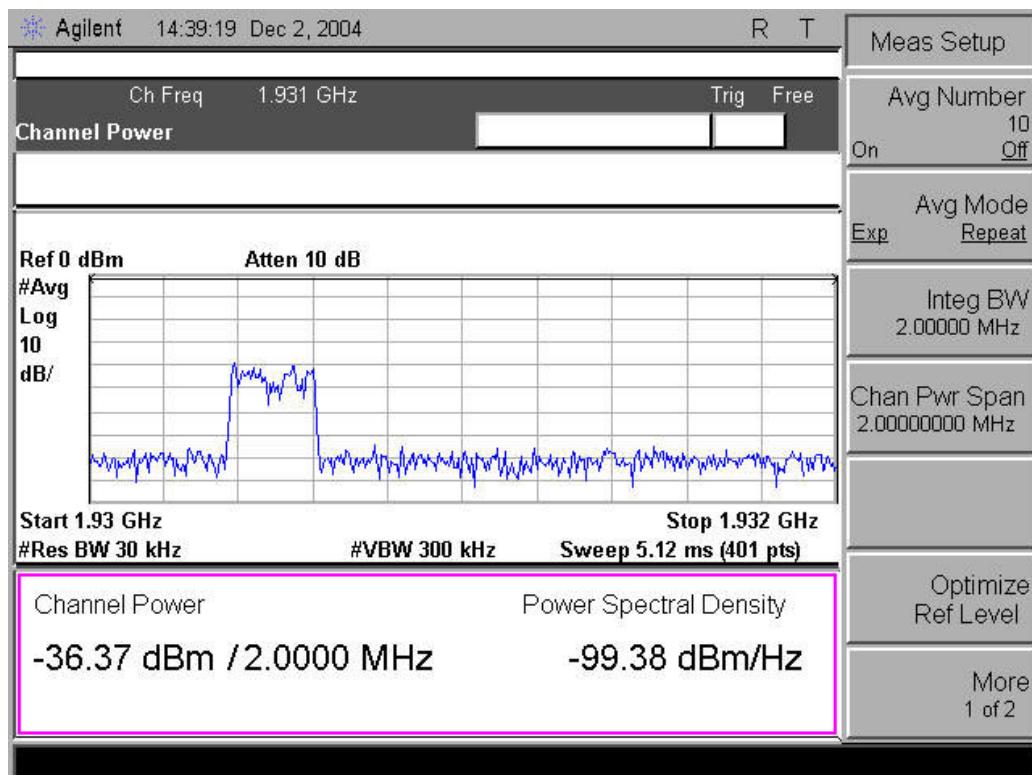


Figure 1: OOB Channel Power Measurement

Results

The first section tabulates measurement results from all applicable tests for each of the seven DUTs. The results for each DUT are divided in to five categories corresponding to five types of tests described in *Test Descriptions* above.

All measurement data tables in this section have a *Test ID* (such as *1N*, *2D*, *1S*, etc.) which corresponds with *Test ID* in Table 5-Table 8 above. Each table consists of 4 sub tables showing results at two base station simulator downlink power levels (*RX Level*) and two temperatures (*T*).

Following the individual DUT tabular results are comparative graphs of the Receiver Overload, Intermodulation, and AWGN tests, with the measurements from the same test performed on each handset of the same technology plotted on the same graph.

Table 76 through Table 84 show results for CDMA technology DUTs, and Table 85 through Table 90 show results for GSM DUTs. Each graph compares results at two handset receive sensitivity levels of -100 dBm and -105 dBm for CDMA DUTs, and -97 dBm and -102 dBm for GSM DUTs. Separate graphs are provided for results at each of the two chamber temperatures of 78 and 100 degrees F.

Table 91 through Table 95 show results for the one UMTS technology DUT. Since there was only one DUT, results at both handset receive sensitivity levels of -100 dBm and -105 dBm are combined on the same plot with results at both chamber temperatures of 78 and 100 degrees F.

In result tables at an RX Level of -97 dBm and result tables at an RX Level of -102 dBm, the baseline error rate was between 1.85% and 2.15%, plus a 0.3% tolerance. In result tables at an RX Level of -100 dBm, the baseline error rate was between 0.75% and 1.0%, plus 0.3% tolerance. In result tables at an RX Level of -105 dBm, the baseline error rate was between 4.5% and 5.0%, plus 0.3% tolerance.

Finally, a comparative results plot for receive sensitivity threshold of all handsets is presented on page 71, followed by a comparative results plot for out-of-band emissions for all handsets on page 72.

CDMA DUT #1

1. RF-Test-Cable loss: **0.8 dB** (cable ID B)

Receiver sensitivity

78F	100F
-110.22	-110.10

Table 9: Receiver Sensitivity (FER=0.5 %)

Receiver overload tests

Test ID 1A: T=78F RX Level = -105 dBm		Test ID 1B: T=78F RX Level = -100 dBm		Test ID 1A:T=100F RX Level = -105 dBm		Test ID 1B: T=100F RX Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-15.76	80.45	-13.05	86.55	-16.43	77.40	-14.19	85.80
-16.76	47.55	-14.05	29.45	-17.43	47.20	-15.19	24.80
-17.76	27.95	-15.05	9.50	-18.43	26.10	-16.19	9.95
-18.76	21.15	-16.05	4.60	-19.43	17.35	-17.19	4.95
-19.76	14.40	-17.05	2.66	-20.43	13.35	-18.19	2.60
-20.76	10.20	-18.05	1.82	-21.43	11.65	-19.19	1.94
-21.76	8.35	-19.05	1.32	-22.43	9.40	-20.19	1.68
-22.76	9.60	-20.05	1.38	-23.43	9.05	-21.19	1.38
-23.76	7.70	-21.05	1.12	-24.43	7.80	-22.19	1.30
-24.76	7.25	-22.05	1.00	-25.43	8.36	-23.19	1.02
-25.76	6.22			-26.43	7.32		
-26.76	5.64			-27.43	7.22		
-27.76	5.92			-28.43	7.38		
-28.76	5.74			-29.43	7.32		
-29.76	5.30			-30.43	7.80		
-30.76	5.28			-31.43	7.02		

Table 10: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 25

Test ID 1C: T=78F RX Level = -105 dBm		Test ID 1D: T=78F RX Level = -100 dBm		Test ID 1C: T=100F RX Level = -105 dBm		Test ID 1D: T=100F RX Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-10.66	80.65	-6.06	77.90	-11.58	80.00	-7.43	82.65
-11.66	60.55	-7.06	33.60	-12.58	62.55	-8.43	36.90
-12.66	45.20	-8.06	17.05	-13.58	46.15	-9.43	17.50
-13.66	35.10	-9.06	9.05	-14.58	36.90	-10.43	10.50
-14.66	27.40	-10.06	7.25	-15.58	26.90	-11.43	6.70
-15.66	21.00	-11.06	4.25	-16.58	23.35	-12.43	4.60
-16.66	15.70	-12.06	3.26	-17.58	17.45	-13.43	3.20
-17.66	11.55	-13.06	2.82	-18.58	13.90	-14.43	2.32
-18.66	9.40	-14.06	1.90	-19.58	13.55	-15.43	2.52
-19.66	8.15	-15.06	1.70	-20.58	11.40	-16.43	1.82
-20.66	8.50	-16.06	1.66	-21.58	11.95	-17.43	1.54
-21.66	7.15	-17.06	1.08	-22.58	9.20	-18.43	1.32
-22.66	6.38			-23.58	9.60	-19.43	1.28
-23.66	6.16			-24.58	9.00	-20.43	1.36
-24.66	6.28			-25.58	7.80	-21.43	1.06
-25.66	5.44			-26.58	7.64		

Table 11: Receiver overload with GSM interferer at 1918.0 MHz; DUT at channel 25

Test ID 1E: T=78F RX Level = -105 dBm		Test ID 1F: T=78F RX Level = -100 dBm		Test ID 1E: T=100F RX Level = -105 dBm		Test ID 1F: T=100F RX Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-14.13	79.60	-11.44	84.70	-16.43	71.35	-13.8	86.60
-15.13	44.05	-12.44	31.20	-17.43	45.60	-14.8	31.20
-16.13	26.30	-13.44	10.65	-18.43	26.55	-15.8	10.90
-17.13	18.10	-14.44	5.25	-19.43	20.10	-16.8	4.65
-18.13	11.55	-15.44	2.70	-20.43	14.40	-17.8	2.70
-19.13	10.45	-16.44	1.58	-21.43	13.80	-18.8	2.30
-20.13	8.65	-17.44	1.42	-22.43	12.55	-19.8	1.26
-21.13	7.00	-18.44	1.28	-23.43	10.30	-20.8	1.22
-22.13	6.98	-19.44	1.02	-24.43	10.70	-21.8	1.24
-23.13	6.64			-25.43	8.10	-22.8	1.18
-24.13	5.22			-26.43	9.20		
-25.13	5.06			-27.43	7.90		
-26.13	4.96			-28.43	9.98		
-27.13	4.66			-29.43	8.14		

Table 12: Receiver overload with CDMA interferer at 1917.5 MHz; DUT at channel 25

Test ID 1G: T=78F RX Level = -105 dBm		Test ID 1H: T=78F RX Level = -100 dBm		Test ID 1G: T=100F RX Level = -105 dBm		Test ID 1H: T=100F RX Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-13.88	78.45	-12.55	75.45	-14.43	74.20	-14.05	79.55
-14.88	33.20	-13.55	18.05	-15.43	35.25	-15.05	21.55
-15.88	13.30	-14.55	3.90	-16.43	19.85	-16.05	5.65
-16.88	7.85	-15.55	2.28	-17.43	9.75	-17.05	2.35
-17.88	4.80	-16.55	1.26	-18.43	6.70	-18.05	1.62
-18.88	3.04	-17.55	0.90	-19.43	5.32	-19.05	1.22
-19.88	2.80	-18.55	0.56	-20.43	3.74	-20.05	1.04
-20.88	2.22	-19.55	0.52	-21.43	3.88	-21.05	0.90
-21.88	1.78			-22.43	3.40	-22.05	0.68
-22.88	1.88			-23.43	3.42	-23.05	0.96

Table 13: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 450

Test ID 1I: T=78F RX Level = -105 dBm		Test ID 1J: T=78F RX Level = -100 dBm		Test ID 1I: T=100F RX Level = -105 dBm		Test ID 1J: T=100F RX Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
11.6	6.05	11.6	1.05	12.4	6.23	12.6	0.95
10.6	5.54	10.6	1.02	11.4	5.11	11.6	1.12
9.6	5.56	9.6	1.18	10.4	4.56	10.6	1.01
8.6	5.54	8.6	1.12	9.4	5.52	9.6	1.16
7.6	4.56	7.6	1.14	8.4	5.21	8.6	1.34
6.6	5.14	6.6	1.28	7.4	5.10	7.6	1.03
5.6	5.48	5.6	1.44	6.4	5.80	6.6	1.31
4.6	3.94	4.6	1.10	5.4	4.33	5.6	1.19
3.6	4.48	3.6	1.10	4.4	4.41	4.6	1.21
2.6	4.36	2.6	1.16	3.4	4.27	3.6	1.26

Table 14: Receiver overload with CDMA interferer at 1908.75 MHz; DUT at channel 25

Intermodulation tests

Test ID 1M: T=78F RX Level = -100 dBm		Test ID 1N: T=78F RX Level = -100 dBm		Test ID 1M: T=100F RX Level = -100 dBm		Test ID 1N: T=100F RX Level = -100 dBm	
INT Power (dBm)	FER	INT Power (dBm)	FER	INT Power (dBm)	FER	INT Power (dBm)	FER
-23.14	80.33	-21.07	81.70	-24.64	77.80	-22.27	79.55
-24.14	52.38	-22.07	50.65	-25.64	55.30	-23.27	48.20
-25.14	28.35	-23.07	16.75	-26.64	30.80	-24.27	19.40
-26.14	16.21	-24.07	6.10	-27.64	16.35	-25.27	8.55
-27.14	9.15	-25.07	2.15	-28.64	9.70	-26.27	4.60
-28.14	7.58	-26.07	1.56	-29.64	8.40	-27.27	2.55
-29.14	5.29	-27.07	0.94	-30.64	5.70	-28.27	1.74
-30.14	5.15	-28.07	0.70	-31.64	5.22	-29.27	1.42
-31.14	5.01			-32.64	5.64	-30.27	1.16

Table 15: Intermodulation with CDMA interferer at 1918.75 MHz; DUT at channel 575

Test ID 1O: T=78F RX Level = -105 dBm		Test ID 1P: T=78F RX Level = -100 dBm		Test ID 1O: T=100F RX Level = -105 dBm		Test ID 1P: T=100F RX Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER
-22.61	79.79	-20.7	80.75	-24.53	79.65	-22.28	80.40
-23.61	49.78	-21.7	44.95	-25.53	57.55	-23.28	58.50
-24.61	29.92	-22.7	15.45	-26.53	33.05	-24.28	21.45
-25.61	18.63	-23.7	4.60	-27.53	19.30	-25.28	8.20
-26.61	8.88	-24.7	2.78	-28.53	11.80	-26.28	5.40
-27.61	6.51	-25.7	1.46	-29.53	8.20	-27.28	2.95
-28.61	6.27	-26.7	1.16	-30.53	6.80	-28.28	1.90
-29.61	6.14	-27.7	1.04	-31.53	6.18	-29.28	1.38
-30.61	5.02	-28.7	0.64	-32.53	5.56	-30.28	1.34

Table 16: Intermodulation with CDMA interferer at 1917.5 MHz; DUT at channel 550

AWGN tests

Test ID 1S: T=78F RX Level = -105 dBm		Test ID 1T: T=78F RX Level = -100 dBm		Test ID: 1S T=100F RX Level = -105 dBm		Test ID: 1T T=100F RX Level = -100 dBm	
INT Power (dBm/MHz)	FER (%)	INT Power (dBm/MHz)	FER (%)	INT Power (dBm/MHz)	FER (%)	INT Power (dBm/MHz)	FER (%)
-102	80.47	-98.32	81.10	-104.71	80.35	-98.76	76.25
-103	55.06	-99.32	54.95	-105.71	61.70	-99.76	51.80
-104	39.40	-100.32	37.65	-106.71	46.80	-100.76	34.15
-105	23.05	-101.32	24.15	-107.71	34.70	-101.76	21.40
-108	20.11	-102.32	17.35	-108.71	26.05	-102.76	13.45
-109	15.64	-103.32	9.75	-109.71	21.20	-103.76	7.35
-110	13.28	-104.32	6.60	-110.71	16.80	-104.76	5.95
-111	10.68	-105.32	4.35	-111.71	13.80	-105.76	5.10
-112	8.00	-106.32	4.06	-112.71	11.30	-106.76	3.15
-113	6.88	-107.32	2.94	-113.71	9.00	-107.76	2.48
-114	5.98	-108.32	2.40	-114.71	8.50	-108.76	2.26
-115	5.20	-109.32	1.90	-115.71	7.30	-109.76	1.52
-116	4.70			-116.71	7.66		
				-117.71	7.20		
				-118.71	7.14		
				-119.71	7.56		

Table 17: AWGN tests

Out of band emissions tests

DUT Power	Channel	OOBE (dBm/MHz)
Max power	275	-96.47
10 dB below max.		-97.25
Max power	600	-96.87
10 dB below max.		-96.56
Max power	1175	-96.93
10 dB below max.		-96.13

Table 18: OOBE

CDMA DUT #2

1. RF-Test-Cable loss: **0.7 dB** (cable ID H)

Receiver sensitivity

78F	100F
-109.30	-109.07

Table 19: Receiver Sensitivity (FER=0.5%)

Receiver overload tests

Test ID: 1A T=78F Rx Level = -105dBm		Test ID: 1B T=78F Rx Level = -100dBm		Test ID: 1A T=100F Rx Level = -105dBm		Test ID: 1B T=100F Rx Level = -100dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-16.4	79.80	-16	73.00	-18.41	79.30	-14.89	81.00
-17.4	55.20	-17	26.75	-19.41	54.65	-15.89	40.60
-18.4	33.15	-18	9.80	-20.41	35.20	-16.89	18.15
-19.4	22.45	-19	6.60	-21.41	25.75	-17.89	7.90
-20.4	14.90	-20	3.60	-22.41	19.75	-18.89	5.70
-21.4	12.25	-21	1.64	-23.41	13.30	-19.89	2.80
-22.4	10.00	-22	1.40	-24.41	9.65	-20.89	2.48
-23.4	7.55	-23	1.28	-25.41	9.25	-21.89	1.96
-24.4	6.34	-24	1.36	-26.41	8.25	-22.89	1.42
-25.4	6.56	-25	1.02	-27.41	8.54	-23.89	0.96
-26.4	5.62			-28.41	8.06		
-27.4	5.90			-29.41	7.40		
-28.4	5.36			-30.41	7.00		
-29.4	4.74			-31.41	6.20		

Table 20: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 25

Test ID: 1C T=78F Rx Level = -105 dBm		Test ID: 1D T=78F Rx Level = -100 dBm		Test ID: 1C T=100F Rx Level = -105 dBm		Test ID: 1D T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-13.04	83.35	-9.75	75.85	-15.03	81.90	-10.15	83.50
-14.04	66.20	-10.75	40.00	-16.03	64.45	-11.15	52.90
-15.04	52.15	-11.75	20.45	-17.03	49.30	-12.15	32.85
-16.04	38.80	-12.75	11.40	-18.03	37.70	-13.15	19.90
-17.04	30.60	-13.75	7.70	-19.03	26.70	-14.15	11.70
-18.04	20.55	-14.75	4.85	-20.03	20.50	-15.15	9.10
-19.04	17.05	-15.75	4.00	-21.03	15.30	-16.15	5.70
-20.04	15.00	-16.75	3.30	-22.03	13.80	-17.15	4.35
-21.04	12.45	-17.75	2.42	-23.03	10.80	-18.15	4.10
-22.04	9.55	-18.75	2.08	-24.03	10.85	-19.15	3.05
-23.04	9.50	-19.75	1.96	-25.03	9.00	-20.15	2.58
-24.04	8.15	-20.75	1.60	-26.03	8.55	-21.15	2.36
-25.04	7.70	-21.75	1.44	-27.03	7.50	-22.15	2.02
-26.04	7.08	-22.75	1.40	-28.03	6.90	-23.15	2.08
-27.04	6.10	-23.75	1.22	-29.03	5.88	-24.15	1.82
-28.04	6.02					-25.15	1.62

Table 21: Receiver overload with GSM interferer at 1918.0 MHz; DUT at channel 25

Test ID: 1E T=78F Rx Level = -105 dBm		Test ID: 1F T=78F Rx Level = -100 dBm		Test ID: 1E T=100F Rx Level = -105 dBm		Test ID: 1F T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-13.65	77.25	-11.51	76.00	-14.52	83.40	-13.27	82.65
-14.65	54.50	-12.51	41.25	-15.52	64.80	-14.27	50.40
-15.65	31.75	-13.51	20.70	-16.52	44.55	-15.27	23.40
-16.65	19.85	-14.51	10.05	-17.52	29.55	-16.27	12.75
-17.65	14.25	-15.51	5.20	-18.52	21.10	-17.27	6.85
-18.65	11.75	-16.51	2.95	-19.52	15.95	-18.27	3.90
-19.65	9.00	-17.51	2.42	-20.52	12.25	-19.27	3.05
-20.65	7.95	-18.51	2.06	-21.52	9.80	-20.27	2.64
-21.65	7.34	-19.51	1.58	-22.52	7.85	-21.27	2.16
-22.65	6.90	-20.51	1.22	-23.52	6.35	-22.27	2.02
-23.65	6.32			-24.52	5.62	-23.27	1.80
-24.65	6.48			-25.52	5.18	-24.27	1.44
-25.65	6.10			-26.52	4.72	-25.27	1.32
-26.65	5.96					-26.27	1.22
-27.65	5.64					-27.27	1.02
-28.65	5.40						

Table 22: Receiver overload with CDMA interferer at 1917.5 MHz; DUT at channel 25

Test ID: 1G T=78F Rx Level = -105 dBm		Test ID: 1H T=78F Rx Level = -100 dBm		Test ID: 1G T=100F Rx Level = -105 dBm		Test ID: 1H T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-13.64	83.85	-12.39	78.55	-16	93.80	-13.52	80.85
-14.64	47.30	-13.39	33.70	-17	71.90	-14.52	39.90
-15.64	26.30	-14.39	11.60	-18	48.50	-15.52	15.35
-16.64	14.80	-15.39	4.35	-19	33.05	-16.52	5.50
-17.64	9.15	-16.39	2.70	-20	20.95	-17.52	2.55
-18.64	6.50	-17.39	1.94	-21	15.10	-18.52	1.46
-19.64	4.66	-18.39	1.52	-22	10.75	-19.52	1.26
-20.64	4.08	-19.39	1.30	-23	9.50	-20.52	1.10
-21.64	4.20	-20.39	1.34	-24	6.60	-21.52	1.22
		-21.39	1.12	-25	8.14	-22.52	0.98
				-26	6.82		
				-27	5.78		
				-28	5.18		
				-29	4.94		

Table 23: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 450

Test ID: 1I T=78F Rx Level = -105 dBm		Test ID: 1J T=78F Rx Level = -100 dBm		Test ID: 1I T=100F Rx Level = -105 dBm		Test ID: 1J T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
8.1	5.70	8.1	0.79	8.1	5.30	8.1	0.83
7.1	5.05	7.1	0.78	7.1	5.01	7.1	0.88
6.1	5.95	6.1	0.76	6.1	6.38	6.1	0.86
5.1	5.80	5.1	0.48	3.1	7.01	5.1	0.85
4.1	6.70	4.1	0.66	2.1	5.37	4.1	0.91
3.1	5.54	3.1	0.54	1.1	5.99	3.1	0.97
2.1	6.30	2.1	0.90	0.1	5.21	2.1	0.90
1.1	6.48	1.1	0.48	-0.9	4.90	1.1	1.01
0.1	7.86	0.1	0.60	-1.9	5.22	0.1	0.78
-0.9	6.25	-0.9	0.68	-2.9	7.21	-0.9	1.11
-1.9	5.65	-1.9	0.70	-3.9	7.33	-1.9	1.01
-2.9	5.75	-2.9	0.68			-2.9	0.98
-3.9	6.75	-3.9	0.70			-3.9	0.98

Table 24: Receiver overload with CDMA interferer at 1908.75 MHz; DUT at channel 25

Intermodulation tests

Test ID: 1M T=78F Rx Level = -105 dBm		Test ID: 1N T=78F Rx Level = -100 dBm		Test ID: 1M T=100F Rx Level = -105 dBm		Test ID: 1N T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-29.02	78.55	-26.14	79.65	-30.53	83.60	-28.01	80.60
-30.02	49.30	-27.14	42.50	-31.53	63.55	-29.01	43.65
-31.02	27.35	-28.14	15.60	-32.53	34.40	-30.01	17.90
-32.02	18.05	-29.14	7.05	-33.53	19.30	-31.01	7.90
-33.02	10.65	-30.14	2.05	-34.53	10.95	-32.01	3.95
-34.02	8.60	-31.14	1.64	-35.53	9.15	-33.01	2.05
-35.02	6.15	-32.14	1.20	-36.53	7.15	-34.01	1.98
-36.02	6.30	-33.14	0.82	-37.53	6.32	-35.01	1.30
-37.02	5.80			-38.53	5.92	-36.01	1.56
-38.02	5.56			-39.53	5.04	-37.01	1.16
-39.02	5.10					-38.01	1.08

Table 25: Intermodulation with CDMA interferer at 1918.75 MHz; DUT at channel 575

Test ID: 1O T=78F Rx Level = -105 dBm		Test ID: 1P T=78F Rx Level = -100 dBm		Test ID: 1O T=100F Rx Level = -105 dBm		Test ID: 1P T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-24.53	81.55	-22.15	80.85	-30.16	79.80	-26.65	78.45
-25.53	60.45	-23.15	54.55	-31.16	62.10	-27.65	59.35
-26.53	35.25	-24.15	22.90	-32.16	35.15	-28.65	25.85
-27.53	20.25	-25.15	8.70	-33.16	21.15	-29.65	11.45
-28.53	10.90	-26.15	4.70	-34.16	12.70	-30.65	5.35
-29.53	8.20	-27.15	3.40	-35.16	9.55	-31.65	2.75
-30.53	7.25	-28.15	2.04	-36.16	8.40	-32.65	2.00
-31.53	6.22	-29.15	1.66	-37.16	6.70	-33.65	1.66
-32.53	5.80	-30.15	1.16	-38.16	6.36	-34.65	1.46
-33.53	5.08			-39.16	5.60	-35.65	1.32
				-40.16	5.88	-36.65	1.40
				-41.16	5.60	-37.65	1.34
				-42.16	4.74	-38.65	1.08

Table 26: Intermodulation with CDMA interferer at 1917.5 MHz; DUT at channel 550

Test ID: 1Q T=78F Rx Level = -105 dBm		Test ID: 1R T=78F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-15.27	79.45	-12.52	79.90
-16.27	50.60	-13.52	41.25
-17.27	28.15	-14.52	16.30
-18.27	14.80	-15.52	7.80
-19.27	11.05	-16.52	3.75
-20.27	7.40	-17.52	2.46
-21.27	6.50	-18.52	1.74
-22.27	4.94	-19.52	1.54
-23.27	5.50	-20.52	1.40
-24.27	4.68	-21.52	1.04

Table 27: Intermodulation with CDMA interferer at 1918.75 MHz; DUT at channel 840

AWGN tests

Test ID: 1S T=78F Rx Level = -105 dBm		Test ID: 1T T=78F Rx Level = -100 dBm		Test ID: 1S T=100F Rx Level = -105 dBm		Test ID: 1T T=100F Rx Level = -100 dBm	
INT Power (dBm/MHz)	FER (%)	INT Power (dBm/MHz)	FER (%)	INT Power (dBm/MHz)	FER (%)	INT Power (dBm/MHz)	FER (%)
-104.74	81.00	-98.73	83.60	-104.85	77.25	-98.49	86.35
-105.74	65.45	-99.73	59.50	-105.85	62.10	-99.49	60.15
-106.74	50.75	-100.73	43.40	-106.85	45.40	-100.49	42.00
-107.74	36.65	-101.73	28.20	-107.85	33.80	-101.49	23.65
-108.74	28.40	-102.73	18.25	-108.85	26.80	-102.49	14.30
-109.74	19.95	-103.73	12.45	-109.85	18.90	-103.49	9.30
-110.74	17.65	-104.73	7.85	-110.85	15.75	-104.49	6.15
-111.74	13.45	-105.73	6.85	-111.85	11.70	-105.49	4.70
-112.74	11.20	-106.73	4.25	-112.85	10.75	-106.49	3.40
-113.74	9.70	-107.73	3.90	-113.85	10.25	-107.49	2.70
-114.74	8.95	-108.73	2.80	-114.85	8.75	-108.49	2.14
-115.74	7.65	-109.73	2.50	-115.85	7.80	-109.49	1.76
-116.74	7.80	-110.73	3.28			-110.49	0.98
-117.74	6.46	-111.73	2.66				
-118.74	6.48						

Table 28: AWGN tests

Out of band emissions tests

DUT Power	Channel	OOBE (dBm/MHz)
Max power	275	-96.99
10 dB below max.		-97.21
Max power	600	-97.46
10 dB below max.		-95.96
Max power	1175	-94.41
10 dB below max.		-97.31

Table 29: OOB

CDMA DUT #3

1. RF-Test-Cable loss: **0.7 dB** (cable ID I)

Receiver sensitivity

78F	100F
-107.97	-107.97

Table 30: Receiver Sensitivity (FER=0.5%)

Receiver overload tests

Test ID: 1A T=78F Rx Level = -105 dBm		Test ID: 1B T=78F Rx Level = -100 dBm		Test ID: 1A T=100F Rx Level = -105 dBm		Test ID: 1B T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-17.01	78.10	-14.38	87.70	-17.52	80.50	-15.5	84.75
-18.01	48.25	-15.38	25.30	-18.52	49.65	-16.5	28.75
-19.01	28.95	-16.38	8.15	-19.52	30.85	-17.5	10.15
-20.01	20.40	-17.38	3.60	-20.52	20.75	-18.5	4.40
-21.01	14.60	-18.38	2.34	-21.52	15.00	-19.5	3.26
-22.01	11.25	-19.38	1.96	-22.52	12.40	-20.5	2.90
-23.01	9.40	-20.38	1.98	-23.52	9.50	-21.5	2.12
-24.01	8.20	-21.38	1.40	-24.52	9.30	-22.5	2.10
-25.01	7.36	-22.38	1.18	-25.52	8.00	-23.5	1.42
-26.01	6.68	-23.38	1.08	-26.52	7.26	-24.5	1.56
-27.01	6.82			-27.52	6.80	-25.5	1.34
-28.01	5.72			-28.52	5.76		
-29.01	5.38						
-30.01	4.98						
-31.01	4.58						

Table 31: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 25

Test ID: 1C T=78F Rx Level = -105 dBm		Test ID: 1D T=78F Rx Level = -100 dBm		Test ID: 1C T=100F Rx Level = -105 dBm		Test ID: 1D T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-14.28	80.15	-9.38	80.85	-14.4	83.60	-9.89	87.90
-15.28	64.05	-10.38	38.70	-15.4	63.25	-10.89	46.45
-16.28	45.25	-11.38	20.60	-16.4	48.60	-11.89	26.45
-17.28	35.25	-12.38	13.00	-17.4	34.30	-12.89	17.20
-18.28	24.75	-13.38	7.50	-18.4	25.60	-13.89	10.10
-19.28	19.70	-14.38	4.90	-19.4	20.30	-14.89	6.20
-20.28	15.65	-15.38	3.98	-20.4	14.95	-15.89	4.90
-21.28	13.50	-16.38	2.92	-21.4	12.40	-16.89	3.55
-22.28	10.45	-17.38	2.32	-22.4	9.30	-17.89	2.66
-23.28	8.55	-18.38	1.90	-23.4	8.60	-18.89	2.50
-24.28	8.36	-19.38	1.60	-24.4	7.64	-19.89	2.16
-25.28	7.44	-20.38	1.88	-25.4	6.56	-20.89	1.88
-26.28	6.70	-21.38	1.52	-26.4	5.82	-21.89	1.66
-27.28	6.96	-22.38	1.10			-22.89	1.40
-28.28	5.50						
-29.28	5.86						

Table 32: Receiver overload with GSM interferer at 1918.0 MHz; DUT at channel 25

Test ID: 1E T=78F Rx Level = -105 dBm		Test ID: 1F T=78F Rx Level = -100 dBm		Test ID: 1E T=100F Rx Level = -105 dBm		Test ID: 1F T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-15.26	82.15	-13.5	71.55	-16.89	80.55	-15	70.45
-16.26	49.00	-14.5	20.40	-17.89	46.60	-16	20.30
-17.26	30.80	-15.5	6.15	-18.89	29.30	-17	6.30
-18.26	21.60	-16.5	3.50	-19.89	19.45	-18	4.70
-19.26	15.45	-17.5	2.46	-20.89	14.75	-19	2.54
-20.26	12.75	-18.5	1.92	-21.89	12.15	-20	2.38
-21.26	11.60	-19.5	1.56	-22.89	9.15	-21	1.94
-22.26	8.50	-20.5	1.08	-23.89	8.95	-22	1.76
-23.26	7.94	-21.5	1.30	-24.89	7.22	-23	1.44
-24.26	6.76	-22.5	1.36	-25.89	6.64	-24	1.78
-25.26	6.64	-23.5	0.84	-26.89	6.14	-25	1.74
-26.26	5.98			-27.89	4.92	-26	1.76
-27.26	5.80					-27	1.48

Table 33: Receiver overload with CDMA interferer at 1917.5 MHz; DUT at channel 25

Test ID: 1G T=78F Rx Level = -105 dBm		Test ID: 1H T=78F Rx Level = -100 dBm		Test ID: 1G T=100F Rx Level = -105 dBm		Test ID: 1H T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-16.88	81.35	-15.01	85.20	-18.02	83.85	-16.01	83.70
-17.88	40.70	-16.01	25.25	-19.02	51.25	-17.01	26.85
-18.88	24.15	-17.01	10.40	-20.02	32.85	-18.01	9.55
-19.88	14.30	-18.01	3.25	-21.02	21.90	-19.01	5.25
-20.88	9.70	-19.01	2.54	-22.02	16.05	-20.01	3.50
-21.88	7.00	-20.01	1.74	-23.02	13.05	-21.01	2.84
-22.88	5.78	-21.01	1.64	-24.02	9.60	-22.01	2.02
-23.88	4.96	-22.01	1.66	-25.02	9.10	-23.01	1.88
-24.88	4.62	-23.01	1.00	-26.02	7.65	-24.01	1.74
-25.88	4.26	-24.01	1.18	-27.02	7.14	-25.01	1.40
				-28.02	6.88		
				-29.02	6.24		

Table 34: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 450

Test ID: 1I T=78F Rx Level = -105 dBm		Test ID: 1J T=78F Rx Level = -100 dBm		Test ID: 1I T=100F Rx Level = -105 dBm		Test ID: 1J T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
7.1	4.35	7.1	0.65	7.1	5.30	7.1	0.70
6.1	4.86	6.1	0.92	6.1	6.18	6.1	1.08
5.1	5.02	5.1	0.84	5.1	5.54	5.1	0.74
4.1	4.76	4.1	0.88	4.1	5.88	4.1	0.84
3.1	5.42	3.1	0.86	3.1	5.74	3.1	0.90
2.1	4.78	2.1	0.74	2.1	5.20	2.1	1.06
1.1	4.94	1.1	0.96	1.1	6.18	1.1	0.92
0.1	5.30	0.1	1.02	0.1	5.34	0.1	1.18
-0.9	4.72	-0.9	0.92	-0.9	5.28	-0.9	0.70
-1.9	4.58	-1.9	0.74	-1.9	5.38	-1.9	1.04

Table 35: Receiver overload with CDMA interferer at 1908.75 MHz; DUT at channel 25

Intermodulation tests

Test ID: 1M T=78F Rx Level = -105 dBm		Test ID: 1N T=78F Rx Level = -100 dBm		Test ID: 1M T=100F Rx Level = -105 dBm		Test ID: 1N T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-22.64	80.80	-19.64	81.70	-24.02	81.25	-21.14	81.85
-23.64	47.45	-20.64	40.10	-25.02	54.45	-22.14	37.80
-24.64	22.35	-21.64	15.40	-26.02	30.65	-23.14	13.45
-25.64	12.35	-22.64	6.85	-27.02	17.10	-24.14	7.15
-26.64	9.70	-23.64	3.00	-28.02	12.30	-25.14	2.95
-27.64	6.10	-24.64	1.78	-29.02	9.70	-26.14	1.96
-28.64	4.84	-25.64	1.16	-30.02	7.90	-27.14	1.10
-29.64	4.08	-26.64	1.12	-31.02	6.60	-28.14	0.84
-30.64	3.28	-27.64	0.90	-32.02	5.52		
-31.64	3.06	-28.64	0.64	-33.02	5.94		
				-34.02	5.20		

Table 36: Intermodulation with CDMA interferer at 1918.75 MHz; DUT at channel 575

Test ID: 1O T=78F Rx Level = -105 dBm		Test ID: 1P T=78F Rx Level = -100 dBm		Test ID: 1O T=100F Rx Level = -105 dBm		Test ID: 1P T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-20.89	77.00	-18.06	75.05	-23.4	83.00	-19.76	80.40
-21.89	44.60	-19.06	41.90	-24.4	55.35	-20.76	38.50
-22.89	21.75	-20.06	15.30	-25.4	31.75	-21.76	13.65
-23.89	11.15	-21.06	5.95	-26.4	22.45	-22.76	5.55
-24.89	7.55	-22.06	3.25	-27.4	12.70	-23.76	2.30
-25.89	5.74	-23.06	2.00	-28.4	10.95	-24.76	1.68
-26.89	4.78	-24.06	1.54	-29.4	7.45	-25.76	1.26
-27.89	3.68	-25.06	1.32	-30.4	7.32	-26.76	1.42
-28.89	3.22	-26.06	1.06	-31.4	7.32	-27.76	0.98
-29.89	3.24	-27.06	1.06	-32.4	6.00		

Table 37: Intermodulation with CDMA interferer at 1917.5 MHz; DUT at channel 550

AWGN tests

Test ID: 1S T=78F Rx Level = -105 dBm		Test ID: 1T T=78F Rx Level = -100 dBm		Test ID: 1S T=100F Rx Level = -105 dBm		Test ID: 1T T=100F Rx Level = -100 dBm	
INT Power (dBm/MHz)	FER (%)	INT Power (dBm/MHz)	FER (%)	INT Power (dBm/MHz)	FER (%)	INT Power (dBm/MHz)	FER (%)
-104.73	83.05	-99.09	76.30	-104.61	81.70	-98.71	83.75
-105.73	60.25	-100.09	53.35	-105.61	63.05	-99.71	56.95
-106.73	44.75	-101.09	35.60	-106.61	49.05	-100.71	38.05
-107.73	33.60	-102.09	22.80	-107.61	36.05	-101.71	22.40
-108.73	25.15	-103.09	16.05	-108.61	28.60	-102.71	14.30
-109.73	19.30	-104.09	10.55	-109.61	21.75	-103.71	9.15
-110.73	15.20	-105.09	7.45	-110.61	16.40	-104.71	6.20
-111.73	11.70	-106.09	5.25	-111.61	12.15	-105.71	4.10
-112.73	9.85	-107.09	3.25	-112.61	10.15	-106.71	3.35
-113.73	8.65	-108.09	2.86	-113.61	8.30	-107.71	2.58
-114.73	7.50	-109.09	2.64	-114.61	8.05	-108.71	2.12
-115.73	6.46	-110.09	2.36	-115.61	7.60	-109.71	2.04
-116.73	6.06	-111.09	1.82	-116.61	6.55	-110.71	1.20
				-117.61	5.68		

Table 38: AWGN tests

Out of band emissions tests

DUT Power	Channel	OOBE (dBm/MHz)
Max power	275	-97.01
10 dB below max.		-97.35
Max power	600	-96.98
10 dB below max.		-97.04
Max power	1175	-96.42
10 dB below max.		-96.51

Table 39: OOB Emissions

CDMA DUT #4

1. RF-Test-Cable loss: **0.8 dB** (cable ID C)

Receiver sensitivity

78F	100F
-108.67	-108.67

Table 40: Receiver Sensitivity (FER=0.5%)

Receiver overload tests

Test ID: 1A T=78F Rx Level = -105 dBm		Test ID: 1B T=78F Rx Level = -100 dBm		Test ID: 1A T=100F Rx Level = -105 dBm		Test ID: 1B T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-14.69	78.40	-12.05	81.10	-14	96.85	-13.38	86.35
-15.69	58.20	-13.05	23.05	-15	80.85	-14.38	24.85
-16.69	45.70	-14.05	8.15	-16	63.45	-15.38	6.50
-17.69	32.65	-15.05	5.10	-17	49.55	-16.38	3.65
-18.69	23.20	-16.05	3.60	-18	34.70	-17.38	2.80
-19.69	19.50	-17.05	3.28	-19	27.85	-18.38	2.04
-20.69	14.20	-18.05	2.32	-20	19.60	-19.38	1.22
-21.69	12.00	-19.05	1.70	-21	14.15	-20.38	1.34
-22.69	9.10	-20.05	1.28	-22	14.40	-21.38	1.06
-23.69	7.70	-21.05	1.32	-23	11.65	-22.38	0.74
-24.69	7.10	-22.05	1.28	-24	9.95		
-25.69	6.56	-23.05	1.36	-25	9.45		
-26.69	5.68	-24.05	0.74	-26	8.35		
-27.69	5.98			-27	6.75		
-28.69	5.14			-28	5.26		
-29.69	4.86						

Table 41: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 25

Test ID: 1C T=78F Rx Level = -105 dBm		Test ID: 1D T=78F Rx Level = -100 dBm		Test ID: 1C T=100F Rx Level = -105 dBm		Test ID: 1D T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-12.6	83.60	-8.19	77.95	-12.66	81.05	-8.06	83.65
-13.6	69.80	-9.19	45.90	-13.66	67.25	-9.06	45.60
-14.6	54.05	-10.19	26.55	-14.66	51.95	-10.06	23.05
-15.6	36.80	-11.19	15.20	-15.66	40.10	-11.06	14.70
-16.6	27.90	-12.19	10.40	-16.66	29.95	-12.06	9.45
-17.6	19.80	-13.19	7.60	-17.66	23.05	-13.06	6.80
-18.6	18.25	-14.19	5.70	-18.66	18.90	-14.06	4.75
-19.6	12.85	-15.19	3.75	-19.66	13.85	-15.06	4.30
-20.6	10.20	-16.19	2.36	-20.66	12.15	-16.06	2.90
-21.6	8.75	-17.19	2.20	-21.66	9.45	-17.06	2.10
-22.6	8.85	-18.19	1.86	-22.66	9.30	-18.06	2.30
-23.6	7.35	-19.19	1.50	-23.66	8.70	-19.06	1.90
-24.6	6.96	-20.19	1.42	-24.66	6.85	-20.06	1.48
-25.6	7.02	-21.19	1.16	-25.66	6.38		
-26.6	5.90						
-27.6	5.28						

Table 42: Receiver overload with GSM interferer at 1918.0 MHz; DUT at channel 25

Test ID: 1E T=78F Rx Level = -105 dBm		Test ID: 1F T=78F Rx Level = -100 dBm		Test ID: 1E T=100F Rx Level = -105 dBm		Test ID: 1F T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-12.7	80.70	-9.8	89.25	-13.91	84.90	-11.3	87.90
-13.7	60.80	-10.8	25.45	-14.91	62.35	-12.3	27.35
-14.7	43.65	-11.8	9.20	-15.91	47.15	-13.3	10.05
-15.7	30.20	-12.8	4.30	-16.91	35.05	-14.3	5.25
-16.7	23.20	-13.8	3.72	-17.91	23.85	-15.3	3.55
-17.7	18.65	-14.8	2.66	-18.91	19.90	-16.3	2.94
-18.7	12.15	-15.8	2.36	-19.91	15.25	-17.3	2.24
-19.7	11.25	-16.8	1.78	-20.91	11.85	-18.3	1.90
-20.7	8.80	-17.8	1.24	-21.91	10.70	-19.3	1.34
-21.7	8.30	-18.8	1.12	-22.91	9.60		
-22.7	7.12			-23.91	8.20		
-23.7	6.54			-24.91	8.40		
-24.7	5.92			-25.91	7.55		
-25.7	6.10						
-26.7	5.20						
-27.7	4.72						

Table 43: Receiver overload with CDMA interferer at 1917.5 MHz; DUT at channel 25

Test ID: 1G T=78F	Test ID: 1H T=78F	Test ID: 1G T=100F	Test ID: 1H T=100F
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Rx Level = -105 dBm		Rx Level = -100 dBm		Rx Level = -105 dBm		Rx Level = -100 dBm	
INT Power (dBm)	FER (%)						
-13.19	84.65	-11.68	87.70	-13.94	83.95	-12.05	88.25
-14.19	42.90	-12.68	17.60	-14.94	48.80	-13.05	25.50
-15.19	27.25	-13.68	3.90	-15.94	34.20	-14.05	5.60
-16.19	17.05	-14.68	2.62	-16.94	23.90	-15.05	4.15
-17.19	11.95	-15.68	2.54	-17.94	17.80	-16.05	3.00
-18.19	9.25	-16.68	1.54	-18.94	14.15	-17.05	2.32
-19.19	5.95	-17.68	1.42	-19.94	10.40	-18.05	1.72
-20.19	5.70	-18.68	1.02	-20.94	9.65	-19.05	1.82
-21.19	3.70	-19.68	0.90	-21.94	7.50	-20.05	1.42
-22.19	3.76			-22.94	6.30	-21.05	1.12

Table 44: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 450

Test ID: 1I T=78F Rx Level = -105 dBm		Test ID: 1J T=78F Rx Level = -100 dBm		Test ID: 1I T=78F Rx Level = -105 dBm		Test ID: 1J T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
11.8	4.25	11.8	0.76	11.8	5.74	11.6	1.05
10.8	6.10	10.8	0.68	10.8	5.52	10.6	1.46
9.8	4.30	9.8	0.66	9.8	5.32	9.6	1.26
8.8	4.30	8.8	0.76	8.8	5.54	8.6	1.46
7.8	6.85	7.8	0.78	7.8	5.40	7.6	1.50
6.8	7.50	6.8	0.68	6.8	5.94	6.6	1.38
5.8	6.15	5.8	0.58	5.8	5.88	5.6	1.38
4.8	7.25	4.8	0.58	4.8	5.94	4.6	1.46
3.8	6.90	3.8	0.60	3.8	5.40	3.6	1.27
2.8	6.05	2.8	0.68	2.8	5.68	2.6	1.09
1.8	5.30	1.8	0.70	1.8	5.82	1.6	1.21
0.8	6.62	0.8	0.68	0.8	5.44	0.6	1.35
-0.2	6.44	-0.2	0.70	-0.2	5.22	-0.4	1.27

Table 45: Receiver overload with CDMA interferer at 1908.75 MHz; DUT at channel 25

Intermodulation tests

Test ID: 1M T=78F Rx Level = -105 dBm		Test ID: 1N T=78F Rx Level = -100 dBm		Test ID: 1M T=100F Rx Level = -105 dBm		Test ID: 1N T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-26.81	81.10	-22.69	82.80	-27.64	77.90	-24.26	81.10
-27.81	51.20	-23.69	47.30	-28.64	47.00	-25.26	39.20
-28.81	29.40	-24.69	17.60	-29.64	26.25	-26.26	14.75
-29.81	17.60	-25.69	7.80	-30.64	16.65	-27.26	6.90
-30.81	12.25	-26.69	4.40	-31.64	11.30	-28.26	3.55
-31.81	10.10	-27.69	1.84	-32.64	8.00	-29.26	1.96
-32.81	7.70	-28.69	1.40	-33.64	5.50	-30.26	1.50
-33.81	7.04	-29.69	0.98	-34.64	5.72	-31.26	1.06
-34.81	5.92	-30.69	0.82	-35.64	5.12	-32.26	0.96
-35.81	6.00	-31.69	0.72	-36.64	5.64	-33.26	0.84
-36.81	5.46			-37.64	4.60		
-37.81	5.48						
-38.81	5.14						

Table 46: Intermodulation with CDMA interferer at 1918.75 MHz; DUT at channel 575

Test ID: 1O T=78F Rx Level = -105 dBm		Test ID: 1P T=78F Rx Level = -100 dBm		Test ID: 1O T=100F Rx Level = -105 dBm		Test ID: 1P T=100F Rx Level = -100 dBm	
INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)	INT Power (dBm)	FER (%)
-24.82	85.45	-21.69	81.75	-25.81	77.60	-23.39	80.80
-25.82	52.05	-22.69	44.65	-26.81	46.40	-24.39	43.80
-26.82	29.45	-23.69	15.50	-27.81	27.50	-25.39	16.35
-27.82	16.15	-24.69	6.15	-28.81	16.00	-26.39	7.15
-28.82	11.25	-25.69	2.90	-29.81	10.90	-27.39	3.80
-29.82	8.15	-26.69	2.08	-30.81	9.25	-28.39	1.72
-30.82	6.98	-27.69	1.34	-31.81	6.75	-29.39	1.44
-31.82	6.24	-28.69	1.28	-32.81	6.58	-30.39	1.24
-32.82	6.18	-29.69	1.08	-33.81	6.50	-31.39	1.38
-33.82	5.50	-30.69	0.82	-34.81	5.60	-32.39	0.96
-34.82	5.32			-35.81	5.50		
-35.82	5.28						
-36.82	5.06						

Table 47: Intermodulation with CDMA interferer at 1917.5 MHz; DUT at channel 550

AWGN tests

Test ID: 1S T=F Rx Level = -105 dBm		Test ID: 1T T=F Rx Level = -100 dBm		Test ID: 1S T=100F Rx Level = -105 dBm		Test ID: 1T T=100F Rx Level = -100 dBm	
INT Power (dBm/MHz)	FER (%)	INT Power (dBm/MHz)	FER (%)	INT Power (dBm/MHz)	FER (%)	INT Power (dBm/MHz)	FER (%)
-104.86	79.75	-98.84	80.05	-103.79	81.11	-98.16	83.75
-105.86	65.15	-99.84	60.40	-104.79	62.91	-99.16	63.95
-106.86	47.90	-100.84	40.90	-105.79	48.03	-100.16	44.35
-107.86	37.85	-101.84	26.70	-106.79	38.50	-101.16	27.80
-108.86	27.55	-102.84	16.90	-107.79	29.12	-102.16	17.00
-109.86	21.70	-103.84	10.50	-108.79	20.87	-103.16	11.40
-110.86	16.35	-104.84	7.45	-109.79	15.31	-104.16	7.10
-111.86	13.85	-105.84	4.70	-110.79	13.29	-105.16	5.85
-112.86	12.30	-106.84	3.15	-111.79	12.04	-106.16	3.55
-113.86	10.20	-107.84	2.80	-112.79	10.88	-107.16	2.80
-114.86	9.15	-108.84	2.04	-113.79	9.57	-108.16	2.40
-115.86	7.05	-109.84	2.16	-114.79	8.06	-109.16	1.84
-116.86	6.27	-110.84	1.86	-115.79	7.01	-110.16	1.90
		-111.84	1.68	-116.79	6.55	-111.16	1.60
		-112.84	1.26	-117.79	6.30	-112.16	1.46
				-118.79	5.80	-113.16	1.28

Table 48: AWGN tests

Out of band emissions tests

DUT Power	Channel	OOBE (dBm/MHz)
Max power	275	-96.81
10 dB below max.		-96.99
Max power	600	-96.25
10 dB below max.		-97.04
Max power	1175	-96.59
10 dB below max.		-96.48

Table 49: OOBE

GSM DUT #1

1. RF-Test-Cable loss: **0.8 dB** (cable ID G)

Receiver sensitivity

78F	100F
-108.76	-108.76

Table 50: Receiver Sensitivity (BER=2%)

Receiver overload tests

Test ID: 2A T=78F Rx Level = -102 dBm		Test ID: 2B T=78F Rx Level = -97 dBm		Test ID: 2A T=100F Rx Level = -102 dBm		Test ID: 2B T=100F Rx Level = -97 dBm	
INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)
-13.82	10.25	-11.94	10.83	-13.45	10.53	-11.44	10.60
-14.32	8.44	-12.44	8.28	-14.45	7.41	-11.94	8.06
-14.82	6.73	-12.94	6.61	-15.45	5.73	-12.44	6.18
-15.32	6.21	-13.44	5.37	-16.45	4.88	-12.94	5.16
-15.82	5.41	-13.94	4.56	-16.95	4.43	-13.44	4.50
-16.32	4.77	-14.44	3.92	-17.45	4.05	-13.94	3.85
-16.82	4.56	-14.94	3.41	-17.95	3.68	-14.44	3.52
-17.32	4.10	-15.44	3.22	-18.45	3.55	-14.94	3.25
-17.82	3.79	-15.94	3.06	-18.95	3.28	-15.44	3.12
-18.32	3.49	-16.44	2.94	-19.45	3.09	-15.94	2.90
-18.82	3.16	-16.94	2.74	-19.95	2.98	-16.44	2.76
-19.32	2.99	-17.44	2.64	-20.45	2.81	-16.94	2.66
-19.82	2.80	-17.94	2.54	-20.95	2.67	-17.44	2.58
-20.32	2.81	-18.44	2.40	-21.45	2.59	-17.94	2.47
-20.82	2.67	-18.94	2.34	-21.95	2.55	-18.44	2.42
-21.32	2.44			-22.45	2.63	-18.94	2.30

Table 51: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 515

Test ID: 2C T=78F Rx Level = -102 dBm		Test ID: 2D T=78F Rx Level = -97 dBm		Test ID: 2C T=100F Rx Level = -102 dBm		Test ID: 2D T=100F Rx Level = -97 dBm	
INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)
-11.59	10.09	-8.45	10.32	-10.97	10.60	-7.46	10.30
-12.09	8.95	-8.95	8.88	-11.97	8.58	-7.96	8.89
-12.59	8.31	-9.45	7.72	-12.97	6.63	-8.46	7.81
-13.09	7.49	-9.95	6.99	-13.97	5.19	-8.96	7.08
-13.59	6.31	-10.45	6.39	-14.97	4.31	-9.46	6.86
-14.09	5.75	-10.95	5.28	-15.47	3.99	-9.96	5.25
-14.59	5.07	-11.45	4.51	-15.97	3.66	-10.46	4.72
-15.09	4.39	-11.95	4.19	-16.47	3.46	-10.96	4.33
-15.59	4.10	-12.45	4.13	-16.97	3.32	-11.46	4.01
-16.09	3.94	-12.95	3.83	-17.47	3.17	-11.96	3.73
-16.59	3.43	-13.45	3.37	-17.97	3.02	-12.46	3.44
-17.09	3.29	-13.95	3.17	-18.47	2.94	-12.96	3.26
-17.59	3.10	-14.45	2.93	-18.97	2.86	-13.46	3.05
-18.09	2.92	-14.95	2.79	-19.47	2.77	-13.96	2.88
-18.59	2.90	-15.45	2.62	-19.97	2.78	-14.46	2.63
-19.09	2.83	-15.95	2.54	-20.47	2.54	-14.96	2.60

Table 52: Receiver overload with GSM interferer at 1919.8 MHz; DUT at channel 515

Test ID: 2E T=78F Rx Level = -102 dBm		Test ID: 2F T=78F Rx Level = -97 dBm		Test ID: 2E T=100F Rx Level = -102 dBm		Test ID: 2F T=100F Rx Level = -97 dBm	
INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)
-12.45	10.08	-10.69	10.06	-13.71	9.98	-11.44	10.21
-12.95	8.48	-11.19	7.74	-14.71	7.50	-11.94	7.80
-13.45	7.11	-11.69	6.16	-15.71	5.75	-12.44	6.37
-13.95	6.19	-12.19	5.12	-16.71	4.60	-12.94	5.32
-14.45	5.41	-12.69	4.66	-17.21	4.16	-13.44	4.53
-14.95	4.82	-13.19	3.91	-17.71	3.92	-13.94	3.97
-15.45	4.51	-13.69	3.71	-18.21	3.74	-14.44	3.61
-15.95	4.11	-14.19	3.31	-18.71	3.36	-14.94	3.33
-16.45	3.72	-14.69	3.07	-19.21	3.23	-15.44	3.18
-16.95	3.54	-15.19	3.05	-19.71	2.92	-15.94	2.93
-17.45	3.18	-15.69	2.79	-20.21	2.76	-16.44	2.81
-17.95	2.90	-16.19	2.62	-20.71	2.73	-16.94	2.63
-18.45	2.75	-16.69	2.50	-21.21	2.64	-17.44	2.57
-18.95	2.68	-17.19	2.47	-21.71	2.61	-17.94	2.53
-19.45	2.55	-17.69	2.36	-22.21	2.52	-18.44	2.40
-19.95	2.50	-18.19	2.26	-22.71	2.51	-18.94	2.27

Table 53: Receiver overload with CDMA interferer at 1917.5 MHz; DUT at channel 515

Test ID: 2G T=78F Rx Level = -102 dBm		Test ID: 2H T=78F Rx Level = -97 dBm		Test ID: 2G T=100F Rx Level = -102 dBm		Test ID: 2H T=100F Rx Level = -97 dBm	
INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)
-12.21	9.74	-7.24	10.00	-11.97	10.28	-6.36	10.49
-12.71	8.68	-7.74	9.44	-12.97	8.11	-7.36	8.69
-13.21	7.82	-8.24	8.71	-13.97	6.17	-8.36	7.53
-13.71	6.48	-8.74	8.26	-14.97	4.88	-9.36	6.86
-14.21	5.76	-9.24	7.65	-15.47	4.39	-10.36	6.08
-14.71	5.15	-9.74	6.89	-15.97	3.96	-11.36	5.29
-15.21	4.59	-10.24	6.50	-16.47	3.75	-12.36	4.29
-15.71	4.10	-10.74	5.87	-16.97	3.46	-12.86	3.81
-16.21	3.72	-11.24	5.38	-17.47	3.13	-13.36	3.43
-16.71	3.32	-11.74	5.02	-17.97	2.97	-13.86	3.20
-17.21	3.28	-12.24	4.46	-18.47	2.90	-14.36	2.92
-17.71	2.68	-12.74	4.04	-18.97	2.64	-14.86	2.77
-18.21	2.65	-13.24	3.67	-19.47	2.65	-15.36	2.56
-18.71	2.35	-13.74	3.45	-19.97	2.57	-15.86	2.59
-19.21	2.44	-14.24	3.14	-20.47	2.46	-16.36	2.36
-19.71	2.21	-14.74	2.90	-20.97	2.48	-16.86	2.27

Table 54: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 615

Test ID: 2I T=78F Rx Level = -102 dBm		Test ID: 2J T=78F Rx Level = -97 dBm		Test ID: 2I T=100F Rx Level = -102 dBm		Test ID: 2J T=100F Rx Level = -97 dBm	
INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)
-0.23	10.02	3.02	10.25	1.38	10.75	4.39	10.57
-0.73	8.99	2.52	8.86	0.38	8.51	3.39	7.71
-1.23	7.90	2.02	7.77	-0.62	6.53	2.39	6.16
-1.73	7.12	1.52	6.84	-1.62	5.13	1.39	5.07
-2.23	6.38	1.02	6.29	-2.62	4.09	0.39	4.26
-2.73	5.62	0.52	5.60	-3.12	3.91	-0.11	3.97
-3.23	5.10	0.02	5.18	-3.62	3.52	-0.61	3.48
-3.73	4.39	-0.48	4.65	-4.12	3.27	-1.11	3.39
-4.23	4.07	-0.98	4.51	-4.62	3.03	-1.61	3.12
-4.73	3.62	-1.48	3.87	-5.12	2.91	-2.11	2.95
-5.23	3.43	-1.98	3.58	-5.62	2.79	-2.61	2.80
-5.73	3.06	-2.48	3.17	-6.12	2.64	-3.11	2.73
-6.23	2.95	-2.98	3.28	-6.62	2.53	-3.61	2.65
-6.73	2.86	-3.48	2.88	-7.12	2.55	-4.11	2.48
-7.23	2.69	-3.98	2.63	-7.62	2.43	-4.61	2.47
-7.73	2.48	-4.48	2.56	-8.12	2.40	-5.11	2.39

Table 55: Receiver overload with CDMA interferer at 1908.75 MHz; DUT at channel 515

AWGN tests

Test ID: 2S T=78F Rx Level = -102 dBm		Test ID: 2T T=78F Rx Level = -97 dBm		Test ID: 2S T=100F Rx Level = -102 dBm		Test ID: 2T T=100F Rx Level = -97 dBm	
INT Power (dBm/MHz)	BER (%)	INT Power (dBm/MHz)	BER (%)	INT Power (dBm/MHz)	BER (%)	INT Power (dBm/MHz)	BER (%)
-97.72	9.89	-92.84	9.85	-97.73	10.12	-92.6	10.07
-98.22	9.11	-93.34	9.33	-98.73	8.27	-93.6	8.39
-98.72	8.34	-93.84	8.17	-99.73	7.19	-94.6	7.21
-99.22	7.62	-94.34	7.60	-100.73	5.82	-95.6	6.19
-99.72	6.89	-94.84	6.83	-101.73	5.34	-96.6	5.08
-100.22	6.40	-95.34	6.07	-102.73	4.47	-97.6	4.47
-100.72	5.72	-95.84	5.66	-103.23	4.23	-98.1	4.20
-101.22	5.43	-96.34	5.30	-103.73	4.01	-98.6	3.98
-101.72	4.84	-96.84	4.98	-104.23	3.89	-99.1	3.87
-102.22	4.54	-97.34	4.61	-104.73	3.65	-99.6	3.55
-102.72	4.45	-97.84	4.24	-105.23	3.42	-100.1	3.49
-103.22	4.18	-98.34	4.00	-105.73	3.27	-100.6	3.24
-103.72	3.82	-98.84	3.82	-106.23	3.19	-101.1	3.08
-104.22	3.63	-99.34	3.48	-106.73	3.15	-101.6	3.00
-104.72	3.39	-99.84	3.23	-107.23	2.96	-102.1	2.92
-105.22	3.24	-100.34	3.10	-107.73	2.96		
-106.72	2.97	-100.84	2.95	-108.23	2.74		

Table 56: AWGN tests

Out of band emissions tests

DUT Power	Channel	OOBE (dBm/MHz)
Max power	275	-80.30
10 dB below max.		-83.40
Max power	600	-80.18
10 dB below max.		-83.54
Max power	1175	-75.59
10 dB below max.		-80.49

Table 57: OOBE

GSM DUT #2

1. RF-Test-Cable loss: **0.6 dB** (cable ID E)

Receiver sensitivity

78F	100F
-106.33	-106.33

Table 58: Receiver Sensitivity (BER=2.0%)

Receiver overload tests

Test ID: 2A T=78F Rx Level = -102 dBm		Test ID: 2B T=78F Rx Level = -97 dBm		Test ID: 2A T=100F Rx Level = -102 dBm		Test ID: 2B T=100F Rx Level = -97 dBm	
INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)
-11.84	9.82	-6.46	10.14	-14.6	10.12	-7.59	10.64
-12.84	8.31	-7.46	8.12	-15.6	8.41	-8.59	8.45
-13.84	6.63	-8.46	6.77	-16.6	6.78	-9.59	6.91
-14.84	5.44	-9.46	6.01	-17.6	5.40	-10.59	6.16
-15.84	4.46	-10.46	5.37	-18.6	4.54	-11.59	5.51
-16.34	4.11	-11.46	4.70	-19.1	4.08	-12.59	4.96
-16.84	3.79	-11.96	4.34	-19.6	3.76	-13.09	4.65
-17.34	3.58	-12.46	4.11	-20.1	3.53	-13.59	4.45
-17.84	3.29	-12.96	3.89	-20.6	3.31	-14.09	4.17
-18.34	3.06	-13.46	3.54	-21.1	3.04	-14.59	3.96
-18.84	2.92	-13.96	3.40	-21.6	3.01	-15.09	3.68
-19.34	2.79	-14.46	3.17	-22.1	2.93	-15.59	3.52
-19.84	2.63	-14.96	2.92	-22.6	2.81	-16.09	3.28
-20.34	2.52	-15.46	2.88	-23.1	2.73	-16.59	3.14
-20.84	2.45	-15.96	2.72	-23.6	2.65	-17.09	2.98
-21.34	2.35	-16.46	2.61	-24.1	2.53	-17.59	2.88

Table 59: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 515

Test ID: 2C T=78F Rx Level = -102 dBm		Test ID: 2D T=78F Rx Level = -97 dBm		Test ID: 2C T=100F Rx Level = -102 dBm		Test ID: 2D T=100F Rx Level = -97 dBm	
INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)
-10.21	9.82	-5.01	10.62	-12.59	10.10	-8.34	9.84
-11.21	7.73	-6.01	9.02	-13.59	8.04	-9.34	8.51
-12.21	6.49	-7.01	8.32	-14.59	6.72	-10.34	6.74
-13.21	5.51	-8.01	6.86	-15.59	5.88	-11.34	5.37
-14.21	4.63	-9.01	5.59	-16.59	5.06	-12.34	4.42
-14.71	4.50	-10.01	4.57	-17.59	4.49	-12.84	4.05
-15.21	4.23	-10.51	4.16	-18.09	4.30	-13.34	3.77
-15.71	3.98	-11.01	3.86	-18.59	4.04	-13.84	3.55
-16.21	3.75	-11.51	3.59	-19.09	3.70	-14.34	3.36
-16.71	3.56	-12.01	3.35	-19.59	3.51	-14.84	3.26
-17.21	3.32	-12.51	3.17	-20.09	3.29	-15.34	3.20
-17.71	3.21	-13.01	3.00	-20.59	3.19	-15.84	3.08
-18.21	3.03	-13.51	2.92	-21.09	3.03	-16.34	3.01
-18.71	2.91	-14.01	2.83	-21.59	2.98	-16.84	2.90
-19.21	2.78	-14.51	2.71	-22.09	2.87	-17.34	2.80
-19.71	2.66	-15.01	2.68	-22.59	2.77	-17.84	2.76

Table 60: Receiver overload with GSM interferer at 1919.8 MHz; DUT at channel 515

Test ID: 2E T=78F Rx Level = -102 dBm		Test ID: 2F T=78F Rx Level = -97 dBm		Test ID: 2E T=100F Rx Level = -102 dBm		Test ID: 2F T=100F Rx Level = -97 dBm	
INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)
-9.84	9.64	-4.98	10.03	-12.59	10.25	-6.97	10.08
-10.84	7.88	-5.98	8.43	-13.59	8.15	-7.97	8.61
-11.84	6.51	-6.98	7.18	-14.59	6.68	-8.97	7.11
-12.84	5.43	-7.98	5.97	-15.59	5.62	-9.97	6.04
-13.84	4.66	-8.98	4.93	-16.59	4.68	-10.97	5.06
-14.34	4.27	-9.48	4.50	-17.09	4.29	-11.97	4.29
-14.84	3.95	-9.98	4.17	-17.59	4.01	-12.47	4.05
-15.34	3.72	-10.48	3.90	-18.09	3.74	-12.97	3.77
-15.84	3.39	-10.98	3.71	-18.59	3.51	-13.47	3.50
-16.34	3.23	-11.48	3.51	-19.09	3.31	-13.97	3.31
-16.84	3.04	-11.98	3.29	-19.59	3.13	-14.47	3.16
-17.34	2.83	-12.48	3.18	-20.09	3.08	-14.97	3.00
-17.84	2.81	-12.98	3.01	-20.59	2.90	-15.47	2.93
-18.34	2.62	-13.48	2.85	-21.09	2.81	-15.97	2.77
-18.84	2.52	-13.98	2.78	-21.59	2.72	-16.47	2.63
-19.34	2.44	-14.48	2.71	-22.09	2.63	-16.97	2.57

Table 61: Receiver overload with CDMA interferer at 1917.5 MHz; DUT at channel 515

Test ID: 2G T=78F Rx Level = -102 dBm		Test ID: 2H T=78F Rx Level = -97 dBm		Test ID: 2G T=100F Rx Level = -102 dBm		Test ID: 2H T=100F Rx Level = -97 dBm	
INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)
-8.72	9.87	-5.1	10.58	-11.23	10.49	-8.2	9.94
-9.72	8.35	-6.1	8.39	-12.23	8.61	-9.2	7.55
-10.72	7.43	-7.1	6.57	-13.23	7.37	-10.2	5.71
-11.72	6.37	-8.1	5.25	-14.23	6.25	-11.2	4.70
-12.72	5.42	-9.1	4.44	-15.23	5.10	-11.7	4.39
-13.72	4.53	-9.6	4.09	-16.23	4.18	-12.2	4.11
-14.22	4.07	-10.1	3.89	-16.73	3.76	-12.7	3.94
-14.72	3.70	-10.6	3.70	-17.23	3.49	-13.2	3.68
-15.22	3.45	-11.1	3.62	-17.73	3.21	-13.7	3.49
-15.72	3.20	-11.6	3.33	-18.23	2.98	-14.2	3.29
-16.22	3.05	-12.1	3.28	-18.73	2.76	-14.7	3.13
-16.72	2.93	-12.6	3.11	-19.23	2.59	-15.2	2.97
-17.22	2.76	-13.1	2.92	-19.73	2.52	-15.7	2.75
-17.72	2.58	-13.6	2.81	-20.23	2.39	-16.2	2.63
-18.22	2.51	-14.1	2.69	-20.73	2.28	-16.7	2.53
-18.72	2.47	-14.6	2.58	-21.23	2.23	-17.2	2.41

Table 62: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 615

Test ID: 2I T=78F Rx Level = -102 dBm		Test ID: 2J T=78F Rx Level = -97 dBm		Test ID: 2I T=100F Rx Level = -102 dBm		Test ID: 2J T=100F Rx Level = -97 dBm	
INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)
-1.48	10.02	3.64	10.44	-3.23	9.95	2.53	10.05
-2.48	8.14	2.64	8.21	-4.23	7.63	1.53	7.95
-3.48	6.17	1.64	6.47	-5.23	5.66	0.53	6.55
-4.48	4.65	0.64	5.73	-6.23	4.34	-0.47	5.86
-4.98	4.03	-0.36	5.29	-6.73	4.07	-1.47	5.28
-5.48	3.55	-1.36	4.66	-7.23	3.68	-2.47	4.66
-5.98	3.21	-1.86	4.40	-7.73	3.46	-2.97	4.26
-6.48	2.94	-2.36	4.03	-8.23	3.22	-3.47	3.86
-6.98	2.75	-2.86	3.60	-8.73	3.10	-3.97	3.52
-7.48	2.60	-3.36	3.37	-9.23	2.91	-4.47	3.32
-7.98	2.49	-3.86	3.03	-9.73	2.85	-4.97	2.99
-8.48	2.35	-4.36	2.88	-10.23	2.79	-5.47	2.82
-8.98	2.30	-4.86	2.65	-10.73	2.65	-5.97	2.73
-9.48	2.22	-5.36	2.52	-11.23	2.52	-6.47	2.63
-9.98	2.15	-5.86	2.43	-11.73	2.56	-6.97	2.52
		-6.36	2.36	-12.23	2.45	-7.47	2.46

Table 63: Receiver overload with CDMA interferer at 1908.75 MHz; DUT at channel 515

AWGN tests

Test ID: 2S T=78F Rx Level = -102 dBm		Test ID: 2T T=78F Rx Level = -97 dBm		Test ID: 2S T=100F Rx Level = -102 dBm		Test ID: 2T T=100F Rx Level = -97 dBm	
INT Power (dBm/MHz)	BER (%)	INT Power (dBm/MHz)	BER (%)	INT Power (dBm)	BER (%)	INT Power (dBm)	BER (%)
-98.36	10.24	-93.35	10.27	-98.59	9.71	-93.36	10.34
-99.36	8.62	-94.35	8.71	-99.59	8.35	-94.36	8.81
-100.36	7.37	-95.35	7.46	-100.59	6.91	-95.36	7.41
-101.36	6.21	-96.35	6.34	-101.59	5.90	-96.36	6.34
-102.36	5.28	-97.35	5.38	-102.59	5.05	-97.36	5.57
-103.36	4.51	-98.35	4.65	-103.59	4.37	-98.36	4.74
-103.86	4.28	-98.85	4.33	-104.09	4.21	-98.86	4.37
-104.36	4.00	-99.35	4.10	-104.59	3.92	-99.36	4.20
-104.86	3.71	-99.85	3.92	-105.09	3.69	-99.86	3.90
-105.36	3.53	-100.35	3.58	-105.59	3.47	-100.36	3.69
-105.86	3.29	-100.85	3.46	-106.09	3.31	-100.86	3.51
-106.36	3.21	-101.35	3.30	-106.59	3.09	-101.36	3.35
-106.86	3.00	-101.85	3.17	-107.09	3.00	-101.86	3.21
-107.36	2.79	-102.35	3.01	-107.59	2.85	-102.36	3.08
-107.86	2.74	-102.85	2.94	-108.09	2.77	-102.86	2.99
-108.36	2.67	-103.35	2.80	-108.59	2.69	-103.36	2.93

Table 64: AWGN tests

Out of band emissions tests

DUT Power	Channel	OOBE (dBm/MHz)
Max power	275	-77.70
10 dB below max.		-82.06
Max power	600	-76.58
10 dB below max.		-82.62
Max power	1175	-71.07
10 dB below max.		-78.12

Table 65: OOB E

UMTS DUT #1

1. RF-Test-Cable loss: **0.7 dB** (cable ID F)

Receiver sensitivity

78F	100F
-108.09	-108.03

Table 66: Receiver Sensitivity (BLER=0.5%)

Receiver overload tests

Test ID: 3A T=78F Rx Level = -105 dBm		Test ID: 3B T=78F Rx Level = -100 dBm		Test ID: 3A T=100F Rx Level = -105 dBm		Test ID: 3B T=100F Rx Level = -100 dBm	
INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)
-10.71	50.30	-1.35	53.05	-19.22	67.80	-8.83	70.50
-11.71	39.65	-2.35	41.35	-20.22	50.00	-9.83	47.65
-12.71	29.40	-3.35	29.30	-21.22	39.45	-10.83	38.00
-13.71	21.55	-4.35	21.10	-22.22	25.10	-11.83	25.40
-14.71	15.45	-5.35	15.55	-23.22	19.55	-12.83	14.20
-15.71	12.35	-6.35	8.90	-24.22	16.95	-13.83	7.95
-16.71	11.65	-7.35	4.90	-25.22	14.05	-14.83	5.35
-17.71	9.10	-8.35	3.80	-26.22	9.80	-15.83	4.35
-18.71	7.95	-9.35	3.36	-27.22	9.90	-16.83	3.40
-19.71	8.60	-10.35	2.66	-28.22	8.85	-17.83	2.36
-20.71	7.00	-11.35	1.80	-29.22	6.55	-18.83	2.34
-21.71	6.40	-11.85	1.90	-30.22	7.32	-19.83	1.84
-22.71	6.14	-12.35	1.56	-31.22	7.30	-20.33	2.08
-23.71	5.10	-12.85	1.80	-32.22	6.14	-20.83	1.30
-24.21	6.02	-13.35	1.72	-32.72	6.40	-21.33	1.60
-24.71	5.42	-13.85	1.34	-33.22	5.58	-21.83	1.16
-25.21	5.56	-14.35	1.24	-33.72	5.24		
-25.71	5.84	-14.85	1.30				
-26.21	5.38	-15.35	1.06				
-26.71	5.84						
-27.21	5.46						
-27.71	5.06						
-28.21	4.98						
-28.71	4.92						
-29.21	5.64						
-29.71	4.52						

Table 67: Receiver overload with UMTS interferer at 1918.75 MHz; DUT at channel 412

Test ID: 3C T=78F Rx Level = -105 dBm		Test ID: 3D T=78F Rx Level = -100 dBm		Test ID: 3C T=100F Rx Level = -105 dBm		Test ID: 3D T=100F Rx Level = -100 dBm	
INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)
-15.83	40.50	-8.45	40.00	-20.83	60.95	-11.46	62.20
-16.83	31.20	-9.45	27.30	-21.83	49.85	-12.46	48.45
-17.83	25.95	-10.45	21.40	-22.83	35.15	-13.46	31.70
-18.83	21.05	-11.45	11.80	-23.83	28.60	-14.46	24.35
-19.83	15.00	-12.45	7.60	-24.83	20.50	-15.46	13.35
-20.83	11.90	-13.45	6.10	-25.83	17.00	-16.46	8.10
-21.83	10.50	-14.45	2.45	-26.83	17.30	-17.46	6.60
-22.83	9.55	-15.45	3.02	-27.83	13.90	-18.46	5.05
-23.83	7.50	-16.45	2.34	-28.83	11.80	-19.46	3.50
-24.83	6.90	-17.45	1.90	-29.83	9.65	-20.46	2.32
-25.83	6.42	-17.95	1.54	-30.83	9.80	-21.46	2.40
-26.83	6.44	-18.45	1.62	-31.83	7.90	-22.46	1.96
-27.83	4.88	-18.95	1.34	-32.83	7.25	-22.96	1.64
		-19.45	1.44	-33.83	7.50	-23.46	1.88
		-19.95	1.18	-34.83	7.10	-23.96	1.36
		-20.45	1.12	-35.83	6.70	-24.46	1.18
		-20.95	1.16	-36.83	5.50		
		-21.45	0.94				

Table 68: Receiver overload CDMA interferer at 1918.75 MHz; DUT at channel 412

Test ID: 3E T=78F Rx Level = -105 dBm		Test ID: 3F T=78F Rx Level = -100 dBm		Test ID: 3E T=100F Rx Level = -105 dBm		Test ID: 3F T=100F Rx Level = -100 dBm	
INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)
-17.2	77.20	-12.33	45.70	-22.58	63.70	-14.47	70.20
-18.2	59.10	-13.33	28.90	-23.58	49.45	-15.47	49.60
-19.2	46.10	-14.33	18.85	-24.58	36.15	-16.47	32.00
-20.2	35.80	-15.33	11.05	-25.58	25.55	-17.47	24.20
-21.2	25.15	-16.33	8.00	-26.58	23.40	-18.47	16.25
-22.2	21.40	-17.33	4.75	-27.58	16.90	-19.47	9.55
-23.2	15.90	-18.33	3.65	-28.58	13.90	-20.47	6.25
-24.2	12.05	-19.33	2.52	-29.58	14.60	-21.47	3.75
-25.2	11.25	-20.33	2.14	-30.58	9.25	-22.47	3.62
-26.2	8.40	-20.83	2.02	-31.58	11.25	-23.47	3.00
-27.2	9.70	-21.33	1.98	-32.58	10.55	-24.47	2.42
-28.2	6.75	-21.83	1.68	-33.58	7.30	-25.47	1.96
-29.2	6.68	-22.33	1.12	-34.58	7.56	-25.97	2.00
-30.2	5.88	-22.83	1.26	-35.58	7.36	-26.47	1.72
-30.7	6.66	-23.33	1.32	-36.58	6.22	-26.97	1.48
-31.7	6.18	-23.83	1.44	-37.58	5.78	-27.47	1.06
-32.7	5.34	-24.33	1.14	-38.58	5.15		
-33.2	5.02	-24.83	1.06				
-33.7	4.78						

Table 69: Receiver overload with GSM interferer at 1919.8 MHz; DUT at channel 412

Test ID: 3G T=78F Rx Level = -105 dBm		Test ID: 3H T=78F Rx Level = -100 dBm		Test ID: 3G T=100F Rx Level = -105 dBm		Test ID: 3H T=100F Rx Level = -100 dBm	
INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)
-3.72	48.15	3.05	48.35	-16.46	67.90	-6.58	72.70
-4.72	37.30	2.05	32.85	-17.46	50.25	-7.58	50.80
-5.72	27.40	1.05	20.95	-18.46	37.80	-8.58	34.45
-6.72	19.05	0.05	14.00	-19.46	32.50	-9.58	25.95
-7.72	15.60	-0.95	8.20	-20.46	23.75	-10.58	14.30
-8.72	13.85	-1.95	6.95	-21.46	19.55	-11.58	11.20
-9.72	10.05	-2.95	4.20	-22.46	15.05	-12.58	6.55
-10.72	8.75	-3.95	3.40	-23.46	12.95	-13.58	4.75
-11.72	9.05	-4.95	2.02	-24.46	12.60	-14.58	4.05
-12.72	7.95	-5.45	2.28	-25.46	10.50	-15.58	3.05
-13.72	7.30	-5.95	1.76	-26.46	11.20	-16.58	2.62
-14.72	6.66	-6.45	1.70	-27.46	9.95	-17.58	1.94
-15.72	6.28	-6.95	1.60	-28.46	8.95	-18.08	1.60
-16.72	5.06	-7.45	1.62	-29.46	7.75	-18.58	2.54
-17.22	5.98	-7.95	1.22	-30.46	7.20	-19.58	1.70
-17.72	6.06	-8.45	1.34	-31.46	6.65	-20.08	1.30
-18.22	5.08	-8.95	1.22	-32.46	5.47		
-18.72	5.18	-9.45	1.32				
-19.22	4.72	-9.95	1.54				
		-10.45	1.10				
		-10.95	1.04				

Table 70: Receiver overload with CDMA interferer at 1917.5 MHz; DUT at channel 412

Test ID: 3I T=78F Rx Level = -105 dBm		Test ID: 3J T=78F Rx Level = -100 dBm		Test ID: 3I T=100F Rx Level = -105 dBm		Test ID: 3J T=100F Rx Level = -100 dBm	
INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)
-10.11	75.45	-3	81.65	-12.98	77.80	-2.61	71.00
-11.11	54.00	-4	67.15	-13.98	60.10	-3.61	56.25
-12.11	46.00	-5	44.50	-14.98	46.25	-4.61	42.40
-13.11	30.50	-6	28.85	-15.98	37.30	-5.61	30.85
-14.11	21.80	-7	18.35	-16.98	31.40	-6.61	21.60
-15.11	19.60	-8	13.20	-17.98	20.40	-7.61	15.05
-16.11	15.45	-9	7.80	-18.98	17.40	-8.61	9.90
-17.11	10.80	-10	6.45	-19.98	13.10	-9.61	6.45
-18.11	11.10	-11	4.00	-20.98	12.80	-10.61	5.45
-19.11	9.10	-12	3.00	-21.98	9.95	-11.61	4.05
-20.11	8.55	-13	2.28	-22.98	10.15	-12.61	3.45
-21.11	8.95	-13.5	2.78	-23.98	7.35	-13.61	3.30
-22.11	6.95	-14.5	1.70	-24.98	7.44	-14.61	2.38
-23.11	6.70	-15	1.92	-25.98	7.58	-15.11	2.30
-24.11	5.24	-15.5	1.42	-26.98	7.20	-15.61	1.96
-25.11	5.42	-16	1.30	-27.98	6.28	-16.11	1.06
				-28.98	5.14		

Table 71: Receiver overload with CDMA interferer at 1918.75 MHz; DUT at channel 512

Test ID: 3K T=78F Rx Level = -105 dBm		Test ID: 3L T=78F Rx Level = -100 dBm		Test ID: 3K T=100F Rx Level = -105 dBm		Test ID: 3L T=100F Rx Level = -100 dBm	
INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)
-1.1	5.30	-1.1	0.75	-1.1	6.45	-1.1	0.90
-3.1	5.20	-3.1	0.65	-3.1	5.90	-3.1	0.95
-5.1	5.75	-5.1	0.85	-5.1	5.50	-5.1	1.15
-7.1	4.80	-7.1	0.55	-7.1	5.50	-7.1	0.70
-9.1	4.30	-9.1	0.75	-9.1	5.15	-9.1	1.10
-11.1	4.30	-11.1	0.70	-11.1	6.70	-11.1	0.85
-13.1	4.60	-13.1	0.60	-13.1	5.25	-13.1	1.50
-15.1	5.10	-15.1	0.95	-15.1	5.20	-15.1	1.05
-17.1	4.25	-17.1	0.80	-17.1	5.00	-17.1	0.85
-19.1	4.05	-19.1	0.55	-19.1	6.10	-19.1	0.70
-21.1	3.95	-21.1	0.55	-21.1	5.30	-21.1	0.75
-23.1	4.85					-23.1	1.00

Table 72: Receiver overload with CDMA interferer at 1908.75 MHz; DUT at channel 412

Intermodulation tests

Test ID: 3M T=78F Rx Level = -105 dBm		Test ID: 3N T=78F Rx Level = -100 dBm		Test ID: 3M T=100F Rx Level = -105 dBm		Test ID: 3N T=100F Rx Level = -100 dBm	
INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)	INT Power (dBm)	BLER (%)
-15.08	44.75	-7.71	51.60	-20.21	67.50	-14.59	72.55
-16.08	34.20	-8.71	35.55	-21.21	46.15	-15.59	43.60
-17.08	27.15	-9.71	24.80	-22.21	37.65	-16.59	23.20
-18.08	20.45	-10.71	15.40	-23.21	28.35	-17.59	14.65
-19.08	13.75	-11.71	9.35	-24.21	18.75	-18.59	8.15
-20.08	11.80	-12.71	6.35	-25.21	13.80	-19.59	6.10
-21.08	9.70	-13.71	5.40	-26.21	9.85	-20.59	3.60
-22.08	9.55	-14.71	2.90	-27.21	9.90	-21.59	2.72
-23.08	8.70	-15.71	2.36	-28.21	8.25	-22.59	1.76
-24.08	6.75	-16.71	2.10	-29.21	8.20	-23.09	1.82
-25.08	5.60	-17.21	2.04	-30.21	7.75	-23.59	2.26
-25.58	5.52	-17.71	2.06	-31.21	5.80	-24.09	1.88
-26.08	5.30	-18.21	1.62	-31.71	6.48	-24.59	1.80
-26.58	5.36	-18.71	1.16	-32.71	5.52	-25.09	1.62
-27.08	5.04	-19.21	1.76	-33.21	5.84	-25.59	1.26
-27.58	5.00	-19.71	1.34	-33.71	5.08		
-28.08	4.50	-20.21	1.06				

Table 73: Intermodulation with CDMA interferer at 1918.75 MHz; DUT at channel 537

AWGN tests

Test ID: 3S T=78F Rx Level = -105 dBm		Test ID: 3T T=78F Rx Level = -100 dBm		Test ID: 3S T=100F Rx Level = -105 dBm		Test ID: 3T T=100F Rx Level = -100 dBm	
INT Power (dBm/MHz)	BLER (%)	INT Power (dBm/MHz)	BLER (%)	INT Power (dBm/MHz)	BLER (%)	INT Power (dBm/MHz)	BLER (%)
-96.2	66.20	-90.08	68.45	-96.22	67.30	-90.2	64.00
-97.2	50.15	-91.08	42.40	-97.22	53.95	-91.2	44.75
-98.2	38.35	-92.08	26.75	-98.22	39.40	-92.2	26.75
-99.2	27.60	-93.08	19.50	-99.22	31.20	-93.2	15.85
-100.2	21.75	-94.08	13.30	-100.22	22.85	-94.2	11.10
-101.2	18.25	-95.08	8.00	-101.22	17.60	-95.2	8.40
-102.2	12.75	-96.08	6.80	-102.22	15.20	-96.2	4.40
-103.2	10.80	-97.08	4.80	-103.22	12.15	-97.2	4.05
-104.2	10.95	-98.08	4.05	-104.22	11.10	-98.2	2.40
-105.2	8.70	-99.08	2.70	-105.22	9.35	-99.2	2.36
-106.2	7.55	-100.08	2.38	-106.22	8.10	-100.2	1.66
-107.2	6.04	-100.58	2.30	-107.22	8.00	-100.7	1.40
-108.2	6.06	-101.08	1.80	-108.22	6.80	-101.2	1.62
-109.2	5.28	-101.58	2.14	-109.22	7.48	-101.7	1.48
-110.2	5.74	-102.08	1.88	-110.22	6.28	-102.2	1.54
-111.2	5.16	-102.58	1.56	-111.22	5.18	-102.7	1.68

Table 74: AWGN tests

Out of band emissions tests

DUT Power	Channel	OOBE (dBm/MHz)
Max power	412	-96.47
10 dB below max.		-97.70
Max power	512	-97.65
10 dB below max.		-97.40
Max power	687	-97.94
10 dB below max.		-97.53

Table 75: OOB